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Poster Presentations

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Abstract ID: 285

A Telemedicine/In-Person Medical Abortion Hybrid Protocol

Regina M Renner*, MD, MPH; Madeleine Ennis, PhD; Wendy V Norman, MD, MHSc;
Sheila Dunn, MD, MSc; Helen Pymar, MD, MPH; Edith Guilbert, MD, MSc

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Discuss international evidence on the safety and efficacy of telemedicine medical abortion
2. Describe a proposed hybrid protocol for telemedicine/in-person first trimester medical abortion in Canada
3. Discuss how advancing telemedicine abortion care options could improve access to abortion services in Canada

Description:

Objective: According to a series of Canadian Abortion Provider Surveys (CAPS 2012 and 2019), following the introduction of mifepristone, first trimester medical abortion (MA) increased from less than 4% to 28% of all abortions in Canada; Family Physicians provided 68.1% of them. While in 2019, less than half of first trimester MA respondents to CAPS provided some components of care via telemedicine, COVID-19 has been an international catalyst for the development of safe, effective and acceptable low-/no-touch protocols to maintain abortion access. Their applicability to varying resource settings and patient preferences is still limited. We propose a hybrid protocol for telemedicine and in-person MA in Canada. **Design:** Clinical and research experts developed a hybrid model of care, with telemedicine (low-/no-touch) and in-person options for MA, based on results from the 2019 CAPS and review of the Society of Obstetricians and Gynaecologists of Canada's low-/no-touch protocol and international literature. **Setting:** Provision of first trimester MA in Canada following the COVID-19 pandemic. **Participants:** Physicians and nurse practitioners providing first trimester MA care in Canada. **Main Outcome Measures:** Components of the first trimester MA protocol, included in a hybrid model of care. **Results/Findings:** Our protocol included pre-abortion assessment, prescribing/dispensing of mifepristone-misoprostol, and follow-up care. At each step, we describe patient triage to either low-/no-touch care vs in-person care based on clinical indications, clinician competency, resource availability and patient preference. The protocol specifies contraindications and decision-making about testing such as urine or serum human chorionic gonadotropin, ultrasound, etc. It includes surgical management alternatives and contraceptive counseling. **Conclusion:** Our proposed hybrid abortion protocol is applicable to a variety of resource settings. Advancing virtual care options could improve equitable access to high quality first trimester MA in Canada, and decrease rural urban disparities.

Abstract ID: 342

Antibiotics Versus Pathogens in Empirically Treated Symptomatic Urinary Tract Infections

Amir Shourideh-Ziabari*, MD, CCFP, FCFP; Ramneet Kaloti; Ali Shourideh; Elizabeth Forde; Matthew Orava, MD, MSc, CCFP; Anwar Parbtani, MD, PhD, FCFP, LM

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Determine appropriate antibiotics for empiric treatment of UTI
2. Recognize antibiotics with high resistance to UTI pathogens
3. Select or avoid certain antibiotics for UTI treatment

Description:

Objective: To assess appropriateness of antibiotics prescribed for empiric treatment of symptomatic urinary tract infection (UTI). **Design:** A retroactive chart review of patients presenting at their primary care practices (PCP) with UTI symptoms. Setting: 95 PCP within a single Family Health Team, using a single EMR system. **Methods/Outcome Measures:** We conducted a 2-year retroactive chart review of patients ≥ 18 years presenting to their PCP with UTI symptoms. Initial search was based on the OHIP billing code for UTI. Charts were further assessed for subsequent urine culture and sensitivity (C & S) results. Types of antibiotics used and their suitability based on C & S results was assessed. **Results:** 1299 charts were identified based on OHIP billing code for UTI. C & S was positive in 404 patients (31%). Pathogens identified by C & S were E Coli, 281 cases (69.6%), Enterococcus, 55 (13.6%), Klebsiella, 42 (10.4 %), Proteus, 15 (3.7%), Staph Saprophyticus, 8 (2%), and Strep B, 3 (0.7%). Antibiotics were prescribed to 298 (23%) patients, with Nitrofurantoin in 234 cases (79%), Amoxicillin, 33 (11%), Fosfomycin, 17 (6%), Cephalexin, 11 (4%), Amoxicillin-Clavulanate, 2 (0.5%), Sulfamethoxazole-Trimethoprim, 1 (0.3%). Bacterial sensitivity to antibiotics was 97.7% for Nitrofurantoin, 97% for Sulfamethoxazole-Trimethoprim, 87% for Ciprofloxacin, 87% for Amoxicillin-Clavulanate, 83% for Gentamicin, and 62% for Cefazolin (significantly lower versus Nitrofurantoin and Sulfamethoxazole-Trimethoprim: $p < 0.001$; χ^2 followed by Bonferroni). The most antibiotic resistance was to Cefazolin (32%) followed by Ciprofloxacin (12.7%). The least antibiotic resistance was to Nitrofurantoin (2.2%), followed by Sulfamethoxazole-Trimethoprim (2.9%). **Conclusions:** This study suggests that most primary care providers used appropriate antibiotics for empiric treatment of symptomatic UTI, although Sulfamethoxazole-Trimethoprim seemed underutilized. Most resistance was noted to Cefazolin (which was least effective) and Ciprofloxacin. These antibiotics should be avoided unless warranted due to co-existing medical conditions or drug allergy/interaction profile.

Abstract ID: 350

Approaches to COVID-19 Vaccination Around the World: Work-in-progress

Sumeet Sodhi*, MD, MPH, CCFP; Rifka Chamali, MSc; Devarsetty Praveen, MBBS, MD, PHD; Manushi Sharma, MBA, PGD; Marcelo Garcia Dieguez, MD, MPHE; David Ponka, MD CM, MSc, CCFP (EM), FCFP; Robert Mash, MBChB, FRCGP, FCFP, PHD; Felicity Goodyear-Smith, MBChB, MD, FRNZCGP (Dist)

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Describe the principles of primary health care from a global perspective
2. Explore the benefits of and barriers to integrating primary care and public health for vaccination
3. Appreciate perspectives of international primary care professionals in implementing COVID-19 vaccination in their own contexts

Description:

Objective: The aim of the study is to describe the approach utilized by a diverse group of international primary health care professionals (PHC-P) in delivering their COVID-19 vaccination programs, as well as their perspectives on public health and primary care integration while implementing national COVID-19 vaccination programs in their own jurisdictions. Here, we present our study protocol and development; data analysis is a work-in-progress. **Methods:** The study is a cross-sectional online survey disseminated among a convenience sample of international PHC-P through member-based organizations and professional networks over four months (Nov/2021–Feb/2022) via email and online newsletters. Survey development followed an iterative validation process with a formative committee developing the survey instrument based on study objectives, existing literature and best practices, and a summative committee verifying and validating content. The survey was hosted on Qualtrics XM with participants remaining anonymous and no personal identifying information was collected. Inclusion criteria include: adults who self-define as a PHC-P: academics, researchers, government staff, policymakers, primary care providers such as general practitioners, family physicians, mid-level health care providers, nurses and community pharmacists. **Results:** Main outcome measures are: vaccination implementation approach (planning, coordination, service delivery), level/type of primary care involvement, and degree of primary care and public health integration at community level. Early results show 396 valid responses from 32 countries meeting inclusion criteria; further analysis is a work-in-progress. **Conclusion:** An integrated primary health care approach, where primary care and public health efforts are coordinated, is a key feature of routine immunization campaigns and can lead to greater impact in the rollout of the COVID-19 vaccine. In the future, integrated health systems can ensure that we are better prepared for crises that threaten human health, not only limited to infectious pandemics, but also the rising tide of chronic disease, natural and conflict-driven disasters, and climate change.

Abstract ID: 333

Artificial Intelligence in COVID-19-Related Geriatric Care: A scoping review

Emina Burnazovic*; Amanda Yee; Joshua Levy; Genevieve Gore;
Samira Abbasgholizadeh Rahimi, PhD

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Describe the scope of knowledge on AI in geriatric care during the COVID-19 pandemic
2. Explore AI-based prevention, diagnosis, and treatment of COVID-19 among geriatric populations
3. Recognize the underlying determinants of health that influence AI models

Description:

Context: Artificial intelligence (AI) has presented promise in several medical fields. AI has been applied to address the pandemic among geriatric populations considering that they experienced a significant proportion of COVID-19 cases and deaths. **Objective:** This scoping review aims to summarize the application of AI interventions in COVID-19 screening/monitoring, diagnosis, and/or treatment of older adults. **Design:** We followed the Joanna Briggs Institute and Arksey and O'Malley frameworks in conducting this review. An information specialist searched six databases (OVIDSP, Web of Science Core Collection, Cochrane Library, Engineering Village, Europe PMC, and ScienceDirect) from the date of inception till May 25, 2021. Two independent reviewers screened the titles and abstracts (level 1) and full texts (level 2). We included peer-reviewed English studies that used any AI intervention (except robotic-based interventions) among adults 65+. We explored outcomes relevant to patients, healthcare providers and the healthcare system. Only quantitative studies were included. No restrictions were placed on the country of publication. **Results:** The search yielded 3,228 articles, and after two rounds of screenings, 10 were included. Most articles deployed a single AI model to assess the association between COVID-19-related outcomes and health status variables (i.e., disease, vaccines, comorbidities) (n=8), provide patient monitoring using motion sensors (n=1) and assess treatment efficacy (n=1). Studies occurred within Europe (n=6), North America (n=3), and Asia (n=1). Sample sizes included more males than females (813.7 vs 588.3). Among included studies, only one study indicated Black and Asian racial representation. **Conclusion:** The application of AI during the COVID-19 pandemic has demonstrated potential in geriatric care. Future research is required to assess AI models' effectiveness using a more representative population in terms of sex and ethnicity. Moreover, further efforts are needed at local and global levels to ensure AI models adapted in high-middle income countries can be translated to low-income countries.

Abstract ID: 369

Artificial Intelligence-Based Chatbots in Healthcare: Uses and impacts

Moustafa A. Laymouna*, MD; Yuanchao Ma, MScA; David Lessard, PhD; Tibor Schuster, PhD; Sofiane Achiche, MScA, PhD, Bertrand Lebouché MD, PhD

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Recognize the significance of adopting Chatbots in healthcare
2. Identify the uses of chatbots with a health focus
3. Acknowledge the impacts of AI-based tool on the healthcare system

Description:

Context: Recently, advances in digital health technology have fostered innovations such as Chatbots in healthcare, resulting in less expensive and better-quality care. Chatbots can mimic human interaction using AI to analyze user inputs and respond appropriately using human language. **Objective:** To explore the uses of AI-based Chatbots with a health focus and their impacts on the healthcare system. **Design:** A rapid review was performed. Two reviewers completed a systematic search and study selection using two relevant databases (MEDLINE and Embase). We included all primary studies that met the inclusion and exclusion criteria and reported using a Chatbot either as the main intervention of the study or for delivering its

intervention. We conducted a hybrid thematic analysis to identify the uses and impacts of Chatbots in the healthcare system using an inductive and deductive approach. **Setting:** We reviewed published literature on Chatbots implemented in all healthcare settings. **Participants:** We included studies addressing patients or healthcare providers as the study population. **Findings:** We identified four categories of uses of Chatbots: 1. screening tools for risk assessment, initial provisional diagnosis, and triaging; 2. delivery of health education; 3. immediate assistance 24/7. 4. Behavior change. In addition, we recognized four reported benefits for the healthcare system: 1. enhanced patient engagement and patient-centered care; 2. reduced healthcare providers' workload and increased efficiency; 3. reduced financial or organizational burdens on the healthcare system; 4. data collection for further research. **Conclusion:** The use of AI-based Chatbots in primary care offers the capability of triaging and providing patients with risk assessment, diagnosis, and support as an assistant tool for primary care practitioners. Thus, the wide range of uses and effects of health Chatbots indicate their significance as a key enabler for a more efficient quality of care. However, further research is needed to identify the limitations of Chatbots.

Abstract ID: 301

Assessing Outcomes of a Provincial Practice Enhancement Program

James Macaskill*, BSc: Andries Muller, MBChB, M.Prax.Med, CCFP, FCFP, PhD

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. List categories of recommendations that are most often made during practice assessments
2. Identify features that put physicians at higher risk for recommendations to improve current practice
3. Formulate ways to improve current practice standards

Description:

Introduction: This paper synthesizes the outcomes of Saskatchewan's Practice Enhancement Program (PEP) over the last 24 years. PEP is designed to provide physicians with patient and peer feedback on their clinical practice. In doing so, the program serves as an important means of promoting reflection and continued medical education. While PEP has been delivering this service since 1994, a comprehensive program evaluation has never been done. **Methods:** The research team conducted a retrospective review of 825 practice assessment reports and over 4241 individual recommendations over the last 23 years, from 1997 to 2020, following the structure of PEP's assessments. While PEP evaluates the practices of various medical specialties, this project focused on the evaluations of family physicians. The research team used an inductive approach with thematic analysis to create subcategories to group the 4241 recommendations. Data from these assessments are collected, organized, and analyzed to determine: (i) What areas need improvement? (ii) Is there any other information that results from the data? **Results:** The top recommendation was around documentation. Other recommendations that made the top ten list were: chronic disease management, cumulative patient profiles, medications, emergency preparedness, laboratory investigations, objective measure of pulmonary function, patient privacy, patient safety and depression counselling and care. **Discussion:** While EMR adoption has aided in documentation quality, improvements in the medical record account for two of the three most

common recommendations made by PEP. A physician's practice profile influenced their PEP assessment performance, with teaching or faculty positions and group involvement improving outcomes, on average.

Abstract ID: 385

Assessing Risk of Drug Induced QTc Prolongation in Primary Care

Divya Garg*, MD, MCISc, CCFP; Vishal Bhella, MD, CCFP;
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Jessica Buhler, PharmD; Jalisa Datto, PharmD; Josephine Wan, PharmD, BScPharm

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Recognize medications associated with risk of QTc prolongation
2. Apply Tisdale risk score to stratify risk of drug induced QTc prolongation
3. Explore prescribing patterns and associated risk of QTc prolonging medications in primary care

Description:

Context: Tisdale Risk Score has been validated in acute cardiac care for predicting risk of Drug induced QTc prolongation (QTP). **Objective:** To assess the applicability of Tisdale risk score in primary care. **Design:** A retrospective chart audit with secondary data analysis was completed. The study was approved by the University of Calgary Health Research Ethics Board. **Setting:** Two University of Calgary Department of Family Medicine teaching clinics. **Participants:** Retrospective data from 486 primary care patients prescribed one or more medication(s) with known or possible risk of QTP was analyzed. Cases for the study were 85 patients with pre- and post-pharmacotherapy ECG on chart. A control group of 184 patients not on QTc prolonging medications was analyzed for comparison. **Intervention/Instrument:** Tisdale Risk Score was used to categorize patients as low, moderate or high-risk for QTP. **Outcome Measures:** Odds ratio of QTP in moderate and high-risk patients was compared to low-risk patients. Prescribing patterns of QTc prolonging medications were also reported. **Results:** Most commonly prescribed QTc prolonging medications were anti-depressants. The baseline QTc in case and control groups was similar (cases 428 ms and control 424 ms). In cases, there was higher frequency of low-risk Tisdale classification (69.4%) compared to moderate (25.9%) and high (4.7%) risk. There were 5/85 (5.9%) patients with QTP on post pharmacotherapy ECG in cases. Odds ratio of QTP in moderate risk category compared to low-risk was 0.71 [95% CI – 0.07-6.98]. In comparison, most patients in the control population were low risk (99.5%) for QTP. **Conclusions:** Although there was no correlation between QTP and Tisdale Risk Score, the study shows most patients in primary care are at low risk of QTP and the incidence of QTP is small. This study highlights commonly prescribed QTc prolonging medications and may guide individualized risk assessment and a future prospective study.

Abstract ID: 277**Breastfeeding Education in Postgraduate Family Medicine at University of Toronto**

Natalie Morson*, MD, CCFP, MScCH; Milena Forte, MD, CCFP

Learning objectives:**At the conclusion of this activity, participants will be able to:**

1. Conclude that most family medicine residents do not feel well prepared to support breastfeeding families
2. List the breastfeeding educational experiences most valued by family medicine learners
3. Explain the most common barriers to learning about breastfeeding

Description:

Context: Breastfeeding is accepted as the preferred form of infant nutrition and family physicians are ideally positioned to support breastfeeding families. The literature indicates that graduating family medicine residents are not confident in their clinical skills in this area. **Objective:** This study aimed to understand the current breastfeeding curriculum and evaluate how well it meets the educational needs of Family Medicine residents at the University of Toronto. **Design:** Mixed methods study. A needs assessment survey and focus groups. REB approval from Sinai Health System and University of Toronto. **Setting:** Department of Family and Community Medicine, University of Toronto. **Participants:** Needs assessment survey was distributed to University of Toronto Family medicine residents (n = 242, 49.2% response rate) and recent graduates (n = 35, 42.8% response rate). 11 survey respondents agreed to participate in focus groups (4 current residents, 7 recent graduates). **Main Outcome Measures:** Clinical confidence in breastfeeding medicine, perceived value of educational experiences, perceived barriers to learning. **Results/Findings:** Only 39.5% of respondents felt well-prepared to support breastfeeding mothers. Clinical confidence levels varied among topic areas and available educational experiences varied significant between teaching sites. All experiences were reported to be somewhat/very helpful but exposure to breastfeeding classes and lactation clinics had the highest perceived educational value. The most significant barriers to learning included lack of clinical placements, clinical time constraints and lack of formal breastfeeding teaching. Focus group data revealed conflicting sentiments about the role of the family physician in breastfeeding support. **Conclusion:** The majority of family medicine residents at University of Toronto do not feel well prepared to support breastfeeding families. Our results provide information on which topic areas need focus in curriculum planning and suggest that clinical learning experiences are most valuable to learners.

Abstract ID: 372**Building Good Professional Identity Formation: Faculty Development Initiative: Work-in-progress**

Christine Pask*, MD, MA, CCFP; Cathy MacLean, MD, FCFP, MCISc, MBA

Learning objectives:**At the conclusion of this activity, participants will be able to:**

1. Understand the value of continuing medical education for professionalism, professional identity formation, and ethics

2. Describe the importance of a community of practice for professional identity formation and psychological safety
3. Apply educational frameworks to asynchronous learning in faculty development related to professionalism

Description:

Context: Professional identity formation is a process across a professional's career, not just in training as a student and resident. A Faculty Development course at the University of Saskatchewan was developed to support continuing good professional identity formation for faculty, as well as serve as a resource for teaching students and residents. **Objective:** We aim to support positive learning, work and clinical environments, and ultimately patient care. We also aim to support good professionalism throughout a person's career and to build a community of practice in this area. **Design:** Kern's six-step method was used to develop the course. The content and modality of the course was guided by several sources in the needs assessment. Learning objectives and goals were developed based on the SMART method. This course was developed as individualized interactive instruction (asynchronous). The educational strategies used a constructive development framework and reflective practice that were modified for an asynchronous learning environment. Ethics exemption was granted by the U of S REB. **Setting:** The course is online on the platform Canvas. It can be used for individual learning, or sections can be used in teaching sessions or team-building events. **Participants:** Participants were engaged from across the province. This includes faculty members in all stages of careers, geographic location, and specialties. **Main Outcome Measures:** There are four modules: Professionalism Identity Formation, Psychological Safety, Collegiality, and Ethics. Each module has several sections with a range of content. A variety of learning modalities were used, such as flipped classroom utilizing podcasts and videos, discussion boards, reflective pieces, among other modalities. **Results/Findings:** The Faculty Development course is currently in a pilot project. **Conclusion:** The course will be available to all faculty, and CME accreditation is planned. Sections can be used by individuals, or in a teaching or workplace capacity.

Abstract ID: 348

Cadaveric Workshops Improve Confidence Performing Ultrasound-Guided Joint Injections

Ahmed Mahdi*, MD, CCFP (SEM); Lydia K. Schultz*, MD, CCFP;
Graham Briscoe, MD, MBA, CCFP (SEM); Jane Thornton, MD, PhD, CCFP (SEM) Dip Sp Phy OLY

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Identify ultrasound as a modality for increasing accuracy of joint injections performed in clinic settings
2. Recognize educational workshops using cadaveric specimens as effective for improving confidence performing ultrasound-guided joint injections
3. Verify the utility of offering cadaveric workshops to teach ultrasound-guided joint injections to family physicians

Description:

Context: Use of point of care ultrasound in family medicine has been rapidly expanding. However, a limitation to implementation in clinical practice includes lack of physician experience and confidence. Studies have demonstrated the effectiveness of using cadaveric specimens to teach ultrasound-guided medical procedures, such as central venous catheterizations, but no studies exist to date regarding joint injections. **Objective:** To assess the effectiveness of an educational workshop using a cadaveric specimen in improving resident physicians' confidence in performing ultrasound-guided joint injections. **Design:** Effectiveness was assessed using a 17-item survey with a 5-point Likert-type scale administered pre- and post-workshop, and analyzed using descriptive statistics. Pre- and post-workshop scores for paired questions were compared using the Wilcoxon signed rank test. **Setting:** Western University Anatomy Lab. **Participants:** Thirteen Family Medicine resident physicians and 4 supervisors participated. **Intervention:** A two-hour educational workshop led by the study team consisted of a didactic presentation, followed by a demonstration of ultrasound-guided joint assessment and four injections on a cadaveric specimen: acromioclavicular, glenohumeral, suprapatellar recess, and ankle. Participants then practiced these injections under study team guidance. **Main Outcome Measures:** Our primary outcome measure was confidence performing ultrasound-guided joint injections post-workshop as compared with pre-workshop. **Results:** Participant confidence significantly increased for all ultrasound-guided joint injections, from 1.85 ± 0.77 pre-workshop to 4.00 ± 0.55 post-workshop ($p=0.001$). All study participants indicated they believed the cadaveric workshop was a realistic (38.5% strongly agree, 61.5% agree) and effective (69.2% strongly agree, 30.8% agree) training method. All participants reported interest in participating in a similar workshop again and would recommend this workshop to their colleagues. **Conclusions:** Educational workshops using cadaveric specimens are effective in improving resident physicians' confidence in performing ultrasound-guided joint injections. The inclusion of cadaveric workshops as part of residency and fellowship training could help make these procedures more widely accessible to patients with musculoskeletal concerns.

Abstract ID: 383

Challenges and Recommendations for Conducting Research in PHC: Integrative review

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Ilana Eshriqui Oliveira, RDN, MHSc, PhD; Camila Nascimento Monteiro, RPh, MHSc, PhD;
Adelson Guaraci Jantsch*, MD, FP, MPH, PhD

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Systemic actions involving different actors are necessary to promote practice-based research in primary care
2. Practice-based research needs to bring academia, researchers, patients, and healthcare providers together
3. Research ideas need to emerge from the health care provided to the population in PHC

Description:

Objective: To identify challenges and recommendations for conducting Practice-Based Research in Primary Care. **Method:** Integrative literature review using PubMed, Embase, Scopus, Web of

Science, and Lilacs databases. **Results:** 440 articles were identified and 25 were included in the analysis. There was a predominance of descriptive studies performed in developed countries, most of them performed by family physicians. The challenges and recommendations for conducting Practice-Based Research in Primary Care were (1) research planning issues; (2) lack of minimum infrastructure; (3) engagement of healthcare professionals in research; (4) knowledge translation issues; (5) relationship between academia and practices; (6) international partnerships and collaborations. **Conclusion:** The challenges for implementing Practice-Based Research in Primary Care are similar among the different contexts analyzed and the recommendations point toward the need for perennial and systemic actions, involving managers, decision-makers, academics, health professionals from different categories, and patients, aiming at a sustainable and comprehensive transformation of the primary care practices. In this regard, nurse practitioners are key actors both in carrying out Practice-Based Research in Primary Care and for improving the quality of care provided to the population.

Abstract ID: 386

Covid-19 Vaccine Hesitancy Among Refugees in Calgary, AB: Work-in-progress

Alyssa Ness*, MD; Laurent Wall, MA; Amanda Weightman, MA; Annalee Coakley, MD, DTM&H; Krishna Anupindi, MPH; Deidre Lake, MD; Fariba Aghajafari, MD, PhD

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Describe possible methods to address vaccine access and hesitancy in refugee populations
2. Identify gaps in current vaccination strategies and how they may be bridged
3. Recognize individual, community, and systems-based factors affecting vaccine access and navigation

Description:

Context: The Calgary Catholic Immigration Society (CCIS), Alberta International Medical Graduates Association (AIMGA), and Mosaic Refugee Health Clinic are undertaking a collaborative effort to reduce barriers and support access to COVID-19 vaccination (including first, second, booster, youth, and children's doses) for newcomer refugees to Calgary. **Objective:** To explore the systems approach to Covid-19 vaccination and the experiences of newcomer refugees related to vaccination, including barriers and hesitancy. **Design:** Mixed method study. Quantitative data from CCIS will be used to assess vaccine uptake and decrease in vaccine hesitancy. Qualitative methods will be used to explore systems approaches and refugee experiences through interviews and focus groups with stakeholders (doctors, nurses, community workers) and refugees in Calgary, Alberta. This work has been approved by the University of Calgary Conjoint Health Research Ethics Board. **Setting:** This study will examine the systems approach and experiences of refugees landing in Calgary (with a focus on new refugee arrivals) who move through local vaccination systems. **Participants:** Participants identified through purposive sampling include settlement and healthcare organization staff involved in vaccination pathways for refugees, and refugees that land and are processed through Calgary (n=90). **Findings:** Findings gleaned through thematic analysis will characterize various pathways to vaccination, including partnerships, clinic models and outreach processes, and identify effective avenues to support vaccine access, and overcome hesitancy and other barriers. **Conclusion:** This study's research outcomes will provide

actionable recommendations for academic, policy, clinical and community audiences as they relate to medical and social systems involved in ongoing vaccination efforts for vulnerable populations.

Abstract ID: 316

Creation of a Web-Based Resource for Early Pregnancy Loss

Lindsay Leduc*, MD; Julia Pasquale*, MD; Michelle Yee, MD; Natalie Morson, MD; Kristin Blakely, PhD; Modupe Tunde-Byass, MD; Shelley McLeod, PhD; Liz Tolhurst, MD; Jackie Thomas, MD; Ishan Aditya; Catherine Varner, MD

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Obtain knowledge of www.pregnancyed.ca to inform and educate patients experiencing early pregnancy loss and complications
2. Recognize the urgent need for patient-centered and expert-informed resources for patients experiencing early pregnancy loss
3. Apply the methods and procedures of creating a patient-centered educational innovation

Description:

Context: Many pregnancy losses occur in the first trimester, and patients experiencing symptoms of early pregnancy loss (EPL) frequently seek care in the emergency department (ED). Prior work demonstrates that ED care often does not meet the expectations of patients. In particular, patients identify a lack of educational resources available during this often devastating experience.

Objective: Our objective was to develop a freely accessible, patient and provider co-designed, web-based educational platform for ED patients experiencing symptoms of EPL. **Design:** A review of peer-reviewed and grey literature regarding EPL management was undertaken and summarized. Simultaneously, semi-structured interviews of patients with lived experience and expert healthcare providers were conducted to seek input for the website's content. The initial version of the website was assessed using the Patient Education Materials Assessment Tool for Audiovisual Materials and patient/expert feedback was obtained. **Setting:** Toronto, Ontario **Participants:** The consortium included obstetrician/gynaecologists, family physicians, ED nurses/physicians. Our website (www.pregnancyed.ca) was developed in consultation with a medical education web-designer, a gender studies expert, and web-based patient education consultant. **Results/Findings:** The major themes that emerged from the interviews included but were not limited to: the importance of validating the experience of guilt; the need for reassurance and support; the need for clear and transparent medical information; and ensuring the website was both inclusive and accessible. The website www.pregnancyed.ca was created, and following an iterative feedback process, will be made publicly available to patients of two local EDs via a QR code. **Conclusion:** This team identified a need for a patient-centered, expert-informed resource that can be accessed by patients experiencing complications in early pregnancy. This website seeks to inform patients about the physical and psychological manifestations of EPL. This patient-informed, web-based education platform is an important step in improving the healthcare experience of patients experiencing early pregnancy complications.

Abstract ID: 320

CVD Prevention Among Women in Primary Care Using AI: Work-in-progress

Ilhem Chaima Bousbiat*; Roland Grad, MD, CM, MSc, FCFP; Shahram Yousefi, PhD, P.Eng; Charo Rodriguez, MD, PhD; Pierre Pluye, MD, PhD; Jean Légaré; Gianluigi Bisleri, MD, FRCSC; Howard Bergman, MD, FCFP, FRCPC; Isabelle Vedel, MD, PhD; Marie-Pierre Gagnon, PhD; Samira Abbasgholizadeh-Rahimi, Eng. PhD

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Explore the overall perception of women about CVDs and associated challenges for its prevention
2. Assess the women's needs for an AI-based decision aid for CVDs prevention
3. Identify the perspectives of women on ethical considerations of adopting AI

Description:

Context: Cardiovascular diseases (CVDs) are the leading cause of death worldwide, particularly among women in Canada. Women are diagnosed by healthcare professionals five to ten years later than men, thus being less likely to get preventive measures before disease onset. **Objectives:** To explore the perspectives, needs, and preferences of women at excess risk of CVDs on the use of Artificial Intelligence (AI) for the prevention of CVDs and the related ethical concerns to ultimately enhance patient outcomes, and ensure efficient clinical work and accurate diagnoses. **Design:** Descriptive qualitative study. **Setting:** The study is conducted in one family medicine clinic affiliated with McGill University in Montreal, Quebec. **Participants:** A purposeful sample of (n=15) women. Eligible women are: (i) over 40 years and old residing in Quebec, (ii) have at least one CVDs-related risk factor; traditional or non-traditional, (iii) can provide informed consent and communicate in English verbally and in writing. **Intervention:** Semi-structured interviews (60-90 minutes) with women at risk of CVD aiming to (i) explore their overall perception and associated challenges for CVDs prevention, (ii) assess women's needs for an AI-based decision aid for CVDs prevention, and (iii) identify the perspectives of women on ethical considerations of adopting AI. We are conducting an inductive thematic analysis for qualitative data. **Findings:** We approached 60 women, of whom 15 were eligible and interviewed for our study. Recruitment is completed. Five themes have been generated to date from the analysis of fifteen interviews. Further themes might emerge as the analysis continues. **Conclusion:** This study will result in an assessment of women's perspectives, needs, and ethical aspects regarding different areas of implementing AI in CVDs prevention. The study offers insight for the next phases of a larger project, titled Xi-Care, which ultimately will lead to the development of an AI-based decision aid for CVDs prevention for women.

Abstract ID: 287

Developing a New FM Obstetrics Assessment Tool: Work-in-progress

Sanja Kostov*, MD, CCFP; Samantha Horvey, MD, CCFP; Shelley Ross, PhD; Mirella Chiodo; Taryn Wicijowski, MD

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Describe the need for context-appropriate assessment tools
2. Explain how a context-specific assessment tool supports teachers with limited time for faculty development
3. Describe the evaluation of both the development and implementation of this new assessment tool

Description:

Objective: Timely and informative assessments of residents are needed to identify their gaps and strengths, and help programs in identifying residents in difficulty. In our program, we identified that the generic assessment form provided to family medicine obstetrics (FMOB) clinical teachers did not allow them to accurately assess residents. Not surprisingly, our program struggled to extract useful assessment data from the completed forms. Our solution was to design a new workplace-based assessment (WBA) form specific to the FMOB context: the FMOB competence rubric (FMOB-CR). The FMOB-CR allows teachers to assess residents guided by clear expectations and examples across six skill dimensions. We will report on the multimethod evaluation of the development and implementation of the FMOB-CR. **Design:** Multimethod evaluation. FMOB-CR design: modified consensus development panel methodology. Validity evidence collection for the tool follows Messick's unified concept of validity referenced for evidence collection. Institutional REB Approved. **Setting:** Postgraduate FMOB longitudinal clinical experience. **Participants:** FMOB clinical teachers (n=30) and residents (n=64). **Intervention:** FMOB-CR: assessment tool containing domain-specific language and explicit expectations of competency. **Outcome Measures:** Validity evidence: 1) content evidence: comparison with similar tools, debriefs with teachers and learners; 2) substantive evidence: analysis of the consistency in how teachers used the tool; 3) generalizability evidence: analysis of assessment information from multiple settings and teachers; 4) consequential evidence: timeliness of assessment completion, amount of written commentary provided, anonymous surveys with residents and teachers to identify benefits and challenges of the tool. **Results:** The tool development process resulted in a useful WBA that meets teachers' stated needs. Preliminary data shows evidence for content and substantive validity. Implementation evaluation is ongoing. **Conclusions:** Following a defined process for design of a context-specific WBA for FMOB resulted in a user-friendly tool that answered a need for teachers in a specific context.

Abstract ID: 394

Developing a Practice Tool for Prescribing Cascades: Work-in-progress

Sameera Toenjes*, PharmD, ACPR; Lianne Jeffs, RN, PhD; Sara Guilcher, MSc, MScPT, PhD; Colleen Metge, PhD; Barbara Farrell, PharmD, ACPR, FCSHP; Lisa McCarthy, PharmD, MSc

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Explain why prescribing cascades are important contributors to medication-related harm
2. List barriers and facilitators associated with addressing prescribing cascades experienced by primary care teams
3. Describe important features of a practice guidance tool to help recognize, investigate and manage cascades

Description:

Context: Prescribing cascades occur when a medication is prescribed to treat the side effect(s) of another medication. This often arises when signs or symptoms are attributed to a new medical condition rather than a medication side effect. Following interviews with people who may have experienced prescribing cascades, their caregivers, physicians and pharmacists, a behavioural science approach was used to develop potential interventions for recognizing, investigating and managing prescribing cascades. The behavioural analysis demonstrated that a practice guidance tool(s) is the foundation for potential interventions. **Objective:** 1. To gather clinicians' perspectives about the important features of a practice guidance tool(s), 2. To explore barriers and facilitators to addressing prescribing cascades experienced by primary care teams. **Design:** About 20 clinicians (physicians, nurse practitioners, pharmacists) will participate in a series of intra- and inter-professional focus groups. The focus groups will assess clinicians' perspectives on addressing prescribing cascades in their teams and about a potential practice guidance tool(s). The discussion will be guided by the Theoretical Domains Framework and GUIDE-IT tool. This study has been reviewed by the University of Toronto Research Ethics Board. **Setting:** Ontario's primary care teams. **Participants:** Physicians, nurse practitioners, and pharmacists who provide direct patient care within primary care teams. **Main Outcome Measures:** Qualitative data will be analyzed using reflexive thematic analysis. **Results/Findings:** Recruitment and data collection are in progress. **Conclusion:** Study findings will contribute information needed to support an implementation and behavioural science informed approach to developing intervention(s) to help clinicians recognize, investigate and manage cascades prescribing cascades in practice.

Abstract ID: 315

Development of Rating Instruments for Assessing Women's Health Procedural Skills

Parisa Rezaiefar*, MD, FCFPC, BSc.; Doug Archibald, PhD; Nisha Waqas, MD;
Susan Humphrey-Murto, MD

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Recognize the two most validated rating instruments used to assess procedural skills' competence of trainees
2. Acquire skills to develop a consensus-based procedure-specific checklists using a modified Delphi method
3. Identify steps to validate a rating instrument for the purpose of assessment of procedural skills

Description:

Objective: Women's health procedures are essential services few family medicine (FM) residents provide upon graduation. The need to improve training and document these skills' acquisition is crucial for equitable health care delivery. The objective of this study was to develop and provide preliminary validity evidence for two rating instruments for assessing FM residents' competence in performing intrauterine device insertion, endometrial biopsy, punch biopsy of vulva, and routine pessary care. **Design:** Descriptive prospective study. **Setting:** Nine Canadian universities. **Participants:** Academic family physicians and gynecologists. **Intervention:** The procedure-specific checklists (PSCs) were developed based on empirical evidence and content expert opinion.

Sixteen physicians from nine universities participated in a modified Delphi to finalize the items for the PSCs. The consensus was defined as A priori. A previously validated global rating scale (GRS) was modified to accommodate women's health procedures in ambulatory setting. Nineteen physicians piloted the PSCs and GRS to rate two videos of one first-year and one second-year FM resident performing the four procedures blindly. They also evaluated the ease of use and accessibility of two instruments. Percentage PSC and GRS average scores were calculated and correlated with the year of training for each procedure. **Results:** Consensus on items for the PSCs was reached after two rounds. Although PSC scores did not correlate with the level of training, the GRS scores did. Both instruments received high average overall scores (31/36) for ease of use and acceptability for all four procedures. **Conclusion:** We designed rating instruments for four women's health procedures and provided evidence for content validity through rigorous checklist development informed by the literature and a panel of Canadian experts. Piloting the instruments demonstrated validity for the response process, with raters describing the scales as easy to use and understand. The positive correlation of GRS with training year provides preliminary data on validity for relation to other variables. These instruments may facilitate training and assessment.

Abstract ID: 377

Direct Admissions to Hospital for Long-Term-Care Residents: Work-in-progress

Dana Mayer*, MD, CCFP; Carla Rosario, MD, PhD, FRCPC; Abhishek Shrestha, MBBS, MD; Brian Wong, MD, FRCPC; Rebecca Stovel, MD, MScCH, HPTE, FRCPC

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Prolonged wait times in the emergency department can increase delirium risk in the elderly
2. Direct admissions to an acute medical ward from long-term care are feasible and safe
3. Direct admissions to an acute medical ward are patient centred and improves care coordination

Description:

Context: Long-term care (LTC) residents spend between 10-26 hours waiting for admission in the emergency department (ED), increasing their risk for hospital-acquired complications such as acute delirium. **Objective:** To design and pilot a direct admission pathway to acute care for LTC residents that minimizes time spent in the ED and evaluate its feasibility, acceptability and safety.

Design: We assembled a cross-sectoral, interprofessional team that included both LTC and acute care providers, staff and operational leaders. We combined quality improvement and design thinking methodologies to establish a clear and detailed description of the current-state acute care transfer and admission process for LTC residents. We then observed and interviewed key stakeholders, including LTC residents and caregivers, to create a novel direct admission pathway that bypasses the ED. Each patient transfer will serve as a Plan-Do-Study-Act cycle and will be evaluated using focus groups to determine how to improve the direct admission pathway. **Setting:** One long-term care home and a tertiary care academic teaching hospital in Toronto, Ontario.

Participants: LTC residents, providers and staff; acute care internists, family medicine hospitalists and staff. **Intervention:** A direct admission pathway for LTC residents that bypasses the ED. **Main Outcome Measures:** qualitative analysis of interviews and focus group will be used to identify common themes of the stakeholders' experiences, about feasibility, safety and patient experience.

Interviews and chart review will identify inappropriate transfers (balance measure). Quantitative data about timing of transfer, and admission details will be collected as well (process measures).

Findings: Our proposed pathway is feasible and it has been approved by all main stakeholders. It emphasizes the importance of integrating and coordinating care during the patient's journey.

Conclusion: Direct admission to acute care of older frail adults in LTC is patient-centered, feasible and will improve transitions of care between health care sectors.

Abstract ID: 389

Drive-Through Mass Vaccination Clinic Model for Efficient Vaccine Dissemination

Pearl Yang*, MD, CCFP, PhD, MSc; Hannah Champion; Lisa Austin; Ashley England; Veronica Frano; Evan Chong, MD, CCFP (COE), MScCH

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Describe the advantages and disadvantages of the drive-through vaccination clinic model
2. Describe components of a successful drive-through vaccination clinic
3. Evaluate the efficiency of drive-through vaccination

Description:

Fast and efficient mass vaccination was a key strategy deployed to protect the community against Sars-CoV2 infection. Stouffville's SoccerCity COVID-19 Vaccination clinic was a physician-led clinic in partnership with Public Health, that delivered COVID vaccinations via the Drive-Through Model. This model allowed individuals to stay in their vehicles during the vaccination event, while the vaccine was administered through an open window or door. The aim of this report is to describe this drive-through model, evaluate its efficiency in delivering vaccines, and provide evidence for effective patient care and outcomes. SoccerCity opened in Stouffville, Ontario, on April 12, 2021 with 88 patients booked. Vaccination was by appointment only, using Eventbrite as the booking platform. Appointments were increased according to supply, capacity, and Ministry guidelines. Vaccinations administered increased to a maximum recorded 1316 vaccinations per day, at a rate of 263 vaccinations per hour, using 6 vaccinators at a time. By August 20, 2021, 54132 doses had been administered. There were 4 anaphylactic events, where Epipens were administered in the recovery area during the 15 minute waiting period. There were no reported motor vehicle accidents that occurred because of post-vaccination reactions. Dizziness was the most common adverse event reported while in recovery, occurring in 27 individuals, followed by paresthesias (20) and presyncope (18). A post-vaccination evaluation QR code was given to all individuals that came through the Drive-through clinic. Surveys were completed by 1104 individuals, rating on average of 97% satisfaction with their experience. The Drive-through method of vaccination was a successful, collaborative, community initiative, that can be used to improve efficiency of vaccination delivery. It allowed for safe dissemination of vaccines to patients, particularly those with mobility issues. Further evaluation and comparison of mass vaccination methods will help to improve the quality, cost-effectiveness, and efficiency of care delivered to the community.

Abstract ID: 382

Evaluation of Clerkship Patient Advocacy Project: Work-in-progress

Phillip Tsang*, MD, CCFP; Melissa Nutik, MD, Med, CCFP, FCFP; James Owen, MD, CCFP; Sharonie Valin, MD, CCFP, MHSc; Joyce Nyhof-Young, BSc, MSc, PhD; Karen Weyman, MD, MEd, CCFP, FCFP; Azadeh Moaveni, MD, CCFP, FCFP

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Appreciate the role of experiential projects in undergraduate advocacy teaching
2. Observe the role of critical reflection in advocacy related program evaluation
3. Identify stakeholder values and attitudes towards an experiential advocacy project

Description:

Health advocacy describes the intentional action to address social determinants of health and health inequities through professional work. The College of Family Physicians of Canada's Four Principles of Family Medicine discuss the importance of advocacy and it is considered a core competency within the Canadian Medical Education Directives for Specialists (CanMEDs) 2015 framework. Family physicians are positioned as critical health advocates for patients, both individually and collectively, as they provide longitudinal and generalist care to support the overall health care system. However, advocacy has long been considered a challenging subject to teach and assess. Since 2014, the University of Toronto has piloted a health advocacy project based on experiential learning for a subset of students, which was initially received positively. This project involved creating and implementing a health advocacy initiative for a patient they have cared for during their third-year clerkship. Current deliverables include a written reflection and an oral presentation. In 2021-22, this project was expanded formally incorporated into the curriculum for all students during the third-year at the University of Toronto. Given that previous iterations were smaller and optional, there is a need to formally assess and iterate this program moving forward - specifically how it fosters advocacy education, and areas for change given the broader scope. We will use mixed-methods of both questionnaires and qualitative data (focus groups, presentations, and thematic analysis) to gather data. The data collected is part of the educational requirements and routine program evaluation which is routinely exempt by our institution's Research Ethics Board. To address the challenges with advocacy evaluation, we will create an evaluation framework based on critical reflection, based on Mezirow's transformative learning theory, as a lens to assess student engagement and learning of health advocacy. This study is in progress and aims to be completed in July 2023.

Abstract ID: 387

Evaluation of Equity-Oriented Care in a Primary Care Setting

Maggie Sutherland, BSc; Sylvia Abonyi, PhD; Marissa Alarcon, MA, Med; Erin BeckWell, MSW, RSW, MSW; Colleen Cristopherson-Cote, MA; Jason Hosain, MD, CCFP; Jason Mecredi, Bed; Yvonne Blonde*, Mphil, MD, CCFP

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Define key components of the equity-oriented primary care framework

2. Describe an evaluation of equity-oriented care at a primary care centre
3. Conclude the next steps for an organization in order to reduce health inequities

Description:

Equity-oriented Primary Care (EOPC) is a framework intended to guide primary care centres in the delivery of equity-responsive care. This study aims to determine if equity-responsive concepts are explicit in clinic policies and/or understood by healthcare staff at a primary care clinic. **Methods:** Qualitative descriptive research study: policy analysis and focus groups. **Preliminary Results:** Policy content pertaining to equity was higher in documents intended for learners. Focus group themes included EOPC-related awareness and the acknowledgment of site-specific barriers to EOPC. Recommended areas for improvement included an explicit commitment to equity, power differentials, and inclusivity. **Conclusions:** EOPC-focused clinic policies are limited. An awareness of EOPC concepts varies depending on clinic role. Priorities for the next steps did emerge and were shared by the full organization. For example, a revision of policies as well as dedicated education for all levels of staff. This could inform the design of future interventions.

Abstract ID: 283

Examining the Relationship Between Selection and Outcomes in Residency: Work-in-progress

Michelle Morros*, MD, CCFP; Samantha Horvey, MD, CCFP; Shelley Ross, PhD;
Nicole Radke, BScH

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Describe the key selection elements utilized in the University of Alberta family medicine program
2. Identify the relationship between key selection elements and resident outcomes in residency
3. Evaluate which elements of our selection process might enhance their own program's process

Description:

Context: Selection of the best candidates into any residency training program can be a challenging process, particularly when the available evidence to inform the process is mostly limited to elements of the standardized Canadian Residency Match Service (CaRMS) application and candidate interviews. Getting selection right is crucial: accepting residents who are a good fit benefits patients, communities, and residents, while a poor fit can have serious negative consequences for both the resident and the program. Over the last 7 years, our program has made systematic changes to our selection process guided by principles of fairness, transparency, and diversity. We are now engaged in an evaluation project to determine if our selection methods are effective. **Objective:** To examine the relationship between selection elements (CaRMS rank order list, file score, and interview score) and resident success or difficulty in the University of Alberta Family Medicine program. **Design:** Retrospective longitudinal observational study; secondary data analysis. REB Approved Pro00112004. **Setting:** Family Medicine Residency Program, University of Alberta. **Participants:** Archived files for residents accepted into the University of Alberta Family Medicine Program in the first round of CaRMS between 2016 and 2020 (n=350). **Intervention:**

Selection process change. **Outcome Measures:** Independent variables: Selection elements (file review score, interview score, rank order list position). Dependent variable: Resident status in the program (“encountered difficulty”, or “successful”) based on an algorithm of use of program resources. REB Approved. **Results:** We expect to identify whether elements of our selection process are associated with whether a resident encounters difficulty during training. We hypothesize that residents who were lowest in file score and/or position on the rank order list will be more likely to encounter difficulty during training. **Conclusions:** The findings from this project will provide a better understanding of what is working and what should be revised in selection.

Abstract ID: 370

Explainable AI for Prediction of COVID-19 Severity Among Older Adults

Samira Rahimi*, Eng, PhD; Charlene Chu, RN, PhD; Charlene Ronquillo, RN, GNC(c), PhD; Roland Grad, MD, CM, MSc; Mylene Arsenault, MD, CM; Kathy McGilton, PhD; Mark Karanofsky, MD, CM

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Learn about application of AI in long term care facilities
2. Obtain knowledge on application of explainable AI and its importance in primary health care
3. Obtain knowledge on how AI could be used during pandemic

Description:

Objective: The aim of this study was to evaluate the feasibility of the development of explainable Artificial Intelligence (AI) algorithms for the detection of COVID-19 and categorizing its severity among senior residents living in long-term care facilities. **Design:** Quantitative AI method. **Setting:** Long term care facilities within the province of Quebec. **Participants:** 986 older adults (age over 65 years) with COVID-19 within the province of Quebec, Canada. **Intervention:** We used explainable AI approaches such as Lime, SHAP, and anchor with machine learning methods (i.e., random forest, deep forest, and XGBoost) on Quebec biobank data. **Results:** The age distribution of the patients was 84.5 19.5 years, and 54.6% of them were male. Our model obtained a good performance (97.36% AUC, 91.65 ACC) to predict the severity of COVID-19 among older adults, in addition to providing us reasoning of why the model gives us a specific outcome. We found alignment with the identified reasoning of predictions of our model and clinical studies’ findings among this population. **Conclusion:** The use of an explainable AI model among older adults for the prediction of the severity of diseases such as COVID-19 is feasible. Further studies are required to integrate this model into a decision support system to facilitate early detection of diseases for (primary) health care providers and evaluate its usability among them.

Abstract ID: 381

Exploring the Relationship Between Continuity of Supervision and Assessment

Ann Lee, MD, MEd, CCFP, FCFP; Lihani Du Plessis, Mphil; Shelley Ross, PhD, MCFP (Hon.)

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Describe the interactions between continuity of supervision and assessment
2. List both risks and benefits of continuity of supervision on assessment
3. Compare and contrast assessment information based on type of supervisory relationship

Description:

Objective: The benefits of continuity of supervision (CoS) to learning have been repeatedly demonstrated in research from undergraduate medical education (UME) longitudinal integrated clerkships. While there exists an assumption that CoS has the same benefits in residency, there is a gap in knowledge that needs to be addressed. There are distinct contextual and structural differences between UME and residency education that could affect the impact of CoS on learning. In this study, we address one aspect of the gap in knowledge of the relationship between CoS and learning in residency. Using a qualitative approach, we explored how preceptors and residents perceive and experience continuity of supervision and assessment. **Design:** Qualitative: interviews using constructivist grounded theory methodology. **Setting:** Family medicine residency program in Western Canada. **Intervention:** Semi-structured interviews. **Findings:** We conducted 14 interviews (nine second year residents and five preceptors). Our thematic analysis identified five themes: 1) CoS offers a developmental approach to assessment; 2) CoS allows for trust-enabled efficiency of assessment; 3) CoS increases usefulness of assessment; 4) CoS leads to confidence-enabled entrustment; and 5) CoS carries a risk of bias in assessment. Four themes support the inclusion of continuous, longitudinal relationships between supervisors and residents as a part of a robust CBME assessment system while one theme recognizes there can be risks. This study took place at a single institution using data from a family medicine program, which limits its generalizability to other institutions, specialties, and programs that are of longer duration. **Conclusion:** The relationship between CoS and assessment is not cut and dried. Participants suggested heterogeneity in CoS relationships, and that the type of assessment information generated depends on the type of CoS relationship. Given the high stakes of the summative assessment decisions made in residency training, a better understanding of the interaction of CoS and assessment is needed.

Abstract ID: 361

Family History App in Personalized Medicine: Work-in-progress

June C Carroll*, MD, CCFP; Michelle Greiver, MD, CCFP; Sahana Kukan, MSc; Rahim Moineddin, PhD; Babak Aliarzadeh, MD, MPH; Noah Ivers, MD, PhD, CCFP; Erin Bearss, MD, CCFP (EM); Sakina Walji, MD, CCFP, MPH; Judith E Allanson, MD, FRCPC, FCCMG, DABMG; Eva Grunfeld, MSc, MD, DPhil, FCFP; Karuna Gupta, MD, CCFP; Ruth Heisey, MD, CCFP; Doug Kavanagh, MD, CCFP; Raymond H Kim, MD, PhD; Michelle Levy, MD, CCFP; Shawna Morrison, MS, CGC; Maria Muraca, MD, CCFP; Donatus Mutasingwa, MD, MPhil, PhD, CCFP; Mary Anne O'Brien, MSc, PhD; Joanne A Permaul, MA, CCRP; Frank Sullivan, PhD, FRSE, FRCP, FRCGP; Brenda J Wilson, MBChB, MSc, MRCP(UK), FFPH

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Identify a strategy for collecting/updating family history

2. Recognize benefits and challenges of patient recruitment by email
3. Identify primary care genetics clinical resources

Description:

Context: Family history (FH) identifies patients at high risk for conditions enabling appropriate management, yet is frequently not entered into electronic medical records (EMR). **Objective:** To evaluate an innovative strategy to collect FH with direct EMR upload prior to patient visits, to improve personalized primary care. **Design:** Cluster-randomized control trial using effectiveness-implementation hybrid design. Eligible Family Health Teams (FHTs) were randomized to 3 intervention sites. REB approval was obtained from intervention sites in addition to preexisting UTOPIAN (University of Toronto Practice Based Research Network) REB approval. **Setting:** UTOPIAN-affiliated FHTs utilizing an emailing platform (Ocean) integrated into PS Suite EMR. **Participants:** Family physicians (FPs) who previously agreed to contribute data to UTOPIAN and adult patients (age 30-69) seen over 6 months. Control patient data obtained from a random selection of FPs who contributed UTOPIAN data over the same 6 months using the same EMR. **Intervention:** Random 4 patients/week invited by email 1-2 weeks prior to FP appointments. Patients completed an online validated Family History Screening Questionnaire (FHSQ), demographic and post-visit questionnaires. FHSQ responses were transferred automatically into the EMR. FPs received EMR notification from the research assistant on appointment days notifying them that FH was available for EMR review. Links to electronic clinical decision support were embedded in the EMR. Control patients received usual care. **Outcome Measures:** Number of patients with updated EMR FH information 30 days after the visit. Acceptability by patients and FPs. **Results:** This work in-progress will describe steps in project implementation. To date, 1725 intervention arm patients invited, 740 no response (43%), 608 agreed/completed FHSQ (35%) and 453 (26%) completed the study. **Conclusion:** This project describes an innovative strategy for collecting/updating FH with direct EMR upload, which could be implemented routinely in practice. The method and practice tools will be described, along with challenges to wider implementation.

Abstract ID: 286

Family Physician Participation in Ontario Health Teams

Colleen Grady, DBA; Sophy Chan-Nguyen*, PhD; David Mathies, MD, CFPC

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Identify the structures and processes used for family physician participation at OHTs
2. Describe the challenges that impede family physician participation in OHTs
3. Recognize the elements of a multiple-case study design

Description:

Objective: This study explores the 1) the processes and structures being used in four Ontario Health Teams (OHT) in the province which enable family physicians to participate fully in OHTs and 2) prevalent challenges that prevent family physicians from full engagement. **Design:** A multiple-case study design was employed to develop a more in-depth understanding of family physician participation in OHTs and to provide context for the progression within each. A cross-

case analysis was conducted to identify similarities, variations, and differences between the cases. Semi-structured interviews and document analysis were used as data collection methods.

Participants: Four OHT communities constituted the cases in this study. We first approached “gatekeepers” at each case to identify key stakeholders including OHT leads, primary care providers, and committee members to interview. With some of the participants, we employed snowball sampling to recruit other established stakeholders to the study. **Findings:** We conducted 39 interviews, 17 (44%) were with family physicians. Structures that enabled family physician participation in OHTs were few, likely due to OHTs being in early stages and interruptions by the pandemic. Challenges specific to participation included lack of time, loss of revenue, intangible outcomes, poor communication and consultation, historically entrenched inequities, and skepticism towards system change by the OHT. **Conclusions:** The OHT model is based on a vision of building a coordinated health care system to better provide care to local communities. Yet, our study demonstrates that OHTs still have a long way to go to engage family physicians in ways that are meaningful and productive. A strong understanding of ongoing processes and challenges within the OHT is imperative to maximize primary care representation across the province.

Abstract ID: 302

Family Physicians Collaborating for Health System Integration: A scoping review

Collen Grady, DBA; Han Han*, PhD; Julia Kim, MSc, MD; Angela Marie Coderre-Ball, PhD; Nadia Alam, MD, CCFP

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Explore the structures that support family physicians collaboration in integrated care delivery system
2. Identify the processes effective for family physicians collaborating with other providers in integrated care
3. Discuss how the findings inform Ontario Health Teams (OHT) development and health system redesign

Description:

Context: Ontario Health Teams serve as a new model for integrative and accessible healthcare. Core to these teams are family physicians (FPs) and their ability to collaborate with other FPs and healthcare providers. Whereas the factors for intra-organizational collaboration have been well-studied, approaches that strengthen inter-organizational collaboration, especially collaboration between FPs and/or FP integration into a network of healthcare organizations, are less well understood. **Objective:** To explore the structures and processes that support FP collaboration in integrated care delivery systems around the globe. **Design:** A scoping review was undertaken based on JBI methodology and Preferred Reporting Items for Systematic Review and Meta-Analysis for Scoping Review (PRISMA_ScR) checklist. With the help of a medical science librarian, a search for academic literature published between 2000-2021 was conducted across databases (MEDLINE, EMBASE, EBSCOhost). Additionally, a search for relevant grey literature was performed. Data charting and thematic analysis were conducted to identify the key findings of the selected studies. **Setting:** Primary care in collaboration with other care organizations in community. **Participants:** FPs involved in inter-organizational collaborative partnerships. **Findings:** Beginning with 11,831

references, title/abstract screening and full text review identified 32 studies appropriate for inclusion. Three key structural components were identified as critical to FP successful participation in inter-organizational partnerships: 1) ensuring shared vision/values in place, 2) having strong, positive leadership by FPs, and 3) having well defined decision-making protocols. Also, three key processes were identified: 1) effective communication, 2) an inclusive and collective sense of motivation for change and collaboration, and 3) relationships built on trust and not hierarchy.

Conclusion: This review is the first to synthesize the best evidence for building collaborations between FPs and other healthcare sectors. Given the strong interest in achieving integrated healthcare systems in Ontario, these findings could inform future discussions around collaborative efforts to support health system redesign.

Abstract ID: 280

FMPivot: Building Resilience in Future Global Health Emergencies: Work-in-progress

Clayton Dyck*, MD, FCFP; Baraa Algalyini, MD, MHSc, FCFP; Sumeet Sodhi, MD, MPH, CCFP; Marcelo Garcia Dieguez, MD, MHPE; Margarita Lam Antoniades, MD, MScCH, CCFP; Adelson Jantsch, MD, MPH, PhD; Rosaria Indah, M.Sc, PhD

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Build capacity and resilience of global family physicians facing future global health emergencies
2. Disseminate global family physicians' collectively gained knowledge and experience during the COVID-19 pandemic
3. Develop and evaluate innovative virtual approaches for co-learning between global family physicians

Description:

Context: The COVID-19 pandemic led to a surge of new models of care and innovation as family physicians worldwide have been adapting to our new paradigm and preparing for the next emergent crisis, but there are limited platforms for sharing these collective “lessons learned”. We aimed to strengthen family physicians’ capacity in global health emergencies through an online module series highlighting this shared knowledge and experience. **Design and Participants:** Global partners of the CFPC Besroul Centre are developing a series of five thematically-based online modules for community-based family physicians, educators and trainees. Each module integrates video narratives of “lessons learned” from global family physicians during the pandemic, along with instructive content and self-learning exercises. Themes include research planning, chronic disease management, disaster planning, medical education and mental health. The series was promoted through social media and WHO, WONCA and CFPC platforms. One introductory module and two full modules will be launched as of April/22. An evaluative framework is being implemented as modules are launched. **Lessons Learned:** Initial feedback from Besroul partner organizations has been positive. As of March/22 the introductory and research planning modules have been viewed respectively by 103 and 154 registrants. Initial completion rates have been low (respectively 42.6% and 8.2% completing more than 25% of module activities. Followup surveys indicate that this is due to the length of the module and registrants’ other concurrent commitments; most participants expressed that they intended to complete the module within 3 months.

Conclusion: Our initial findings suggest global interest in this educational series. We will continue to modify and adapt the module learning environment and content in response to learner feedback. Further study is planned to determine long term impacts on participants' capacity in future global health emergencies.

Abstract ID: 274

Gestational Diabetes and Type 2 Diabetes Among First Nations Women

Ruben Hummelen; Sumeet Sodhi*; Jenna Poirier; Sharen Madden; Shanthive Asokan; Cai-lei Matsumoto; Len Kelly; Janet Gordon

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Describe the relationship between gestational diabetes and progression to type 2 diabetes
2. Explore the sociocultural determinants of health applicable to pregnant women who identify as First Nations
3. Recognize the implications of colonization and systemic racism in maternal health in First Nations communities

Description:

Objective: To examine the development of T2DM in women with GDM in a primarily First Nations population in northwest Ontario. **Design, Setting and Participants:** This is a retrospective cohort study of postpartum progression from GDM to T2DM among women undergoing gestational glucose testing at the Sioux Lookout Meno Ya Win Health Centre between January 1, 2010-December 31, 2017. **Main Outcome Measures:** GDM was diagnosed according to Diabetes Canada diagnostic criteria. Postpartum T2DM was diagnosed by the presence of a single glycosylated hemoglobin (A1C) value of $\geq 6.5\%$ between January 1, 2010-December 31, 2019. GDM cases were matched 2:1 with non-GDM controls in the cohort. Women with a single live birth, GDM screening during pregnancy, and appropriate available pregnancy and post-partum data (post-partum A1C within study period). Data included: maternal age, parity, gestational age, birthweight, C-section and GDM management. Women with pre-existing Type 1 or 2 diabetes were excluded as were non-index pregnancies (non-GDM pregnancies by the same mother). The time to progression to T2DM was measured from the date of delivery of the index pregnancy to the first A1C $\geq 6.5\%$. **Results:** 346 pregnancies with GDM met the inclusion criteria. Postpartum A1C diabetes testing was available on 70% (237/346) of whom 35% (82/237) had a result ≥ 6.5 . Of the 329 age-matched controls, 11% (36/329) had a result ≥ 6.5 . Women with GDM developed T2DM sooner, 32 months vs 44 months ($p=0.030$). Those who experienced GDM were 3-fold more likely to progress to T2DM compared to women who did not (35% vs 11%, $p=0.000$). An important limitation of our analysis was the lack of availability of maternal weight data. **Conclusion:** GDM increases the risk for T2DM 3-fold in this population. Addressing GDM provides opportunities for decreasing subsequent T2DM, benefitting future generations. This will require broad community-based and culturally safe approaches to health and wellbeing.

Abstract ID: 384

Hospital Admissions and Family Medicine Training in Rio de Janeiro

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Two years of training in family medicine can reduce the risk of patients being hospitalized
2. Family medicine training increase the likelihood of follow-up consultations in primary care
3. Investments should be made to fix the shortage of skilled physicians in primary care

Description:

Background: Lack of skilled human resources in primary care remains a major concern for policymakers in low- and middle-income countries. There is little evidence supporting the impact of residency training in family medicine in the quality of care, and it perpetuates misconceptions among policymakers that the provision of primary care can be easily done by any physician without special training. **Methods:** This article compares the risk of patients being hospitalized due to Ambulatory care sensitive conditions and the odds of having follow-up visits in primary care after hospital discharge, according to the type of their medical provider: (1) Generalists (reference), (2) Family physicians; and, (3) patients with no consultations prior to the event. Multilevel multivariate binomial regression models estimated the relative risks of a patient being hospitalized in a given month and the relative risks for the occurrence of a follow-up visit in primary care in a retrospective cohort of 636.640 patients between January 2013 and July 2018 in Rio de Janeiro.

Findings: For all 14 conditions, there was a higher risk of hospitalization when patients had no consultation in primary care prior to the event. Except for Ear, Nose and Throat infections, patients seen by family physicians had a lower risk of being hospitalized, compared to patients seen by Generalists. Follow-up visits were more likely to happen among patients treated by family physicians for almost every condition analyzed. **Conclusion:** With two years of training in family medicine, Family physicians can reduce the risk of their patients being hospitalized and increase the likelihood of those patients having a follow-up consultation in primary care. Investments in residency training in family medicine should be made to fix the shortage of skilled physicians in primary care, reduce hospitalizations and improve quality and continuity of care.

Abstract ID: 380

How Did COVID-19 Affect Continuity? A qualitative exploration

Lihani Du Plessis*, MPhil; Ann Lee, MD, MEd, CCFP, FCFP; Shelley Ross, PhD, MCFP (Hon.)

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Describe how COVID-19 disrupted continuity of education
2. List both positive and negative impacts of COVID-19 on continuity of education
3. Explore steps to support residents impacted by COVID-19

Description:

Objective: There is growing interest in continuity within the medical education community, especially in family medicine. Continuity has relevance to both learning (continuity of supervision;

CoS) and clinical care (continuity of care; CoC). The pandemic containment measures associated with the COVID-19 pandemic had disruptive effects on both CoS and CoC in almost all family medicine residency programs across Canada. The COVID-19 containment measures included shifts to virtual patient care and virtual supervision of learners. Given the emphasis on continuity in the Triple C curriculum, it is important to understand how COVID-19 containment measures may have affected continuity in residency training. In this study, we interviewed residents and faculty advisors to explore their perceptions of the impact of COVID-19 on both CoC and CoS.

Design: Constructivist grounded theory methodology. **Setting:** Mid-sized Canadian family medicine residency program. **Intervention:** Semi-structured interviews. **Findings:** Five faculty advisors and nine residents and five faculty advisors participated in the study. Three themes were identified through thematic analysis. The first theme encompassed the impact of the pandemic containment measures on relationships. Negative impacts on CoS were perceived by both residents and advisors; specifically, relational continuity between preceptors and residents was harder to establish and maintain. The second theme captured impact of COVID-19 on resident preparedness for practice due to decreased patient volume, missed learning opportunities, and lack of resident skill development. Finally, the third theme involved the unexpected positive outcomes of COVID-19. For CoC, residents reported that virtual visits removed scheduling barriers and improved residents' ability to maintain CoC with patients. **Conclusion:** This study has the potential to add valuable information about the impact of COVID-19 on continuity. Our findings suggest that the impact of COVID-19 has not been entirely negative.

Abstract ID: 334

Indigenous-Focused Approaches to Coordinated Discharge: A rapid review

Niveditha Pattathil*, BHSc; Amrita Roy, MD, PhD, CCFP

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Understand key indicators and priorities for coordinated discharge within healthcare systems for Indigenous peoples
2. Gain an understanding of the current scope of the field, including areas for future research
3. Learn about actionable items that can be implemented within healthcare spaces for Indigenous patients

Description:

Context: Early and avoidable hospital readmissions have been recognized as a common and costly occurrence, particularly among Indigenous patients. While some health systems have made attempts or developed initiatives to address factors related to gaps in coordinated discharge for Indigenous peoples in Canada, there continue to be persistent disparities and issues associated with service delivery and accessibility. **Objective:** To identify needs and components of coordinated discharge from the perspective of Indigenous communities directly, and how successful hospital discharge is conceptualized from an Indigenous lens. **Design:** Rapid review of peer-reviewed academic and grey literature. Databases searched: MEDLINE, EMBASE, PsychINFO, Cochrane, CINAHL, PROQUEST, and Google Scholar. Of 1587 citations imported, 88 advanced to full-text screening. 13 articles were included in the final analysis. Data extracted were year, location, needs and components identified, and other notable themes. **Results:** The literature

suggests that a coordinated discharge plan tailored to the patient brings about a reduction in length of hospital stay and helps to prevent avoidable readmission. Specific interventions and programs include factors such as a formal assessment for patient risk factors and needs, personalized patient education, medication reconciliation with pharmacy, pre-discharge care planning, and timely post-discharge follow-up. Inquiring about traditional healing practices and facilitating access to them; taking a holistic approach to health and wellness; and, involving family and community support networks, were also emphasized. Establishment of a dedicated Indigenous discharge navigator was recommended. **Conclusions:** Many hospitals are already investing in attempts to prevent avoidable hospital readmission through various initiatives. This need is greater for Indigenous patients, who already face limited access to health care, and are more likely to face a greater burden of comorbidity, sociocultural barriers, and economic and environmental limitations. This rapid review synthesizes the literature on coordinated discharge planning for Indigenous patients, thereby informing future action and direction.

Abstract ID: 74

Listen to Me! Using postgraduate serious-illness-communication needs to improve ACP

Warren Lewin*, MD, CCFP (PC); Paul Krueger, PhD; Joyce Nyhof-Young, PhD;
Natalie Pulezas, MD, CCFP; Camilla Zimmermann, MD, FRCPC; Stuart Murdoch, MD, CCFP

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Appreciate resident preferences/perceptions for teaching methods and feedback effectiveness used to design Advance-Care-Planning (ACP) curriculum
2. Describe an evidence-based approach to lead and teach residents Advance Care Planning conversations
3. Introduce a clinician learning e-module created in response to feedback to build foundational ACP skills

Description:

High quality serious illness care includes engaging patients and families in Advance Care Planning (ACP) to ensure care is aligned with patient goals and values. ACP is part of a national strategy to improve serious illness care. Despite being in a position to initiate these conversations early, most family doctors do not, in part, because they either never received, or received little, evidence-based communication skills training to acquire the skills, knowledge, and confidence required to do so. Moreover, no current national standard exists to teach these fundamental skills across training sites. **Objective:** To explore the serious illness communication (SIC) teaching literature, the current state of such teaching at the University of Toronto (UofT), and understand graduating UofT family medicine resident preferences for teaching and feedback methods on this topic and their readiness to lead ACP conversations in practice. **Design:** Systematic literature review and online survey of all graduating family medicine residents in Toronto. **Findings:** 60% of graduates completed the survey (n= 93/155) and provided demographic data and a description of the current state of SIC teaching across 14 trainings sites. The majority of residents could not recall being taught an approach, or being observed and given direct feedback on their approach to leading serious illness conversations. Using a structured conversation guide paired with direct observation and feedback was their preferred teaching method. When given feedback, most residents found it

helpful to build communication skills necessary to comfortably engage in ACP. **Conclusion:** Education reform is needed to increase ACP for an aging population. Our results informed both the development of a novel teaching tool designed to better meet the ACP needs of postgraduate clinicians and informed next steps to further explore faculty and resident needs to guide additional curriculum enhancements to increase ACP knowledge/skill and comfort in the primary care setting.

Abstract ID: 336

Low Socioeconomic Status Parents: Outcomes of trustworthy easy-to-read web-based information

Pierre Pluye*, MD, PhD; Albina Tskhay; Christine Loignon, PhD; Geneviève Doray; Reem El Sherif; Gillian Bartlett, PhD; Melanie Barwick, MD, PhD; Vera Granikov, MLIS, PhDc; France Bouthillier, MLIS, PhD; Araceli Gonzalez Reyes; Roland M Grad, MD, CM, MSc; Tibor Schuster, PhD

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Describe outcomes of literacy-oriented web-based parenting information
2. Compare outcomes perceived by low socioeconomic status parents vs other parents
3. Compare outcomes perceived by low socioeconomic status fathers vs mothers

Description:

Context: Almost all parents search web-based information for their children. This study focuses on parents with low socioeconomic status (SES), a correlate of health literacy (determinants of child education/health); specifically, their experience of seeking information on the Naître et Grandir (N&G) website (trustworthy information on child development, education and health in clear language). **Objectives:** To measure the influence of a health literacy intervention on (a) the frequency of the utilization of a questionnaire to understand the perceived outcomes of N&G information, and (b) parents' expected benefits of this information. **Design:** A 4-year prospective time series. **Setting:** For each N&G webpage, parents are invited to complete a questionnaire (Information Assessment Method, IAM) to report their intention to use and expected benefits of the webpage information. **Participants:** Quebec parents of 0-8-year-old children who completed at least one IAM questionnaire. **Intervention:** An improved version of the IAM, the IAM+ was developed with low SES parents and implemented in January 2019. **Main Outcome Measures:** IAM data were collected in the pre-intervention (2017-2018) and the post-intervention (2019-2020) periods. Statistical analyses were descriptive and inferential. **Results:** Participants completed 10,362 IAM questionnaires. The proportion of responses and reported benefits from low SES participants increased post-intervention. Low SES participants and particularly low SES fathers expected greater benefits from the accessed web information compared to other participants and mothers. **Conclusion:** Results suggest (a) family physicians recommend trustworthy easy-to-read informational resources to all patients; (b) web content that incorporates international health literacy standards is associated with greater expected benefits among low SES parents; (c) increasing father awareness and father-inclusive content can lead to greater expected benefits; and (d) the IAM questionnaire that is accessible on all devices, including smartphones, can help low SES parents provide feedback to web editors regarding the outcomes of their content.

Abstract ID: 330**Machine Learning for Billing Code Prediction in Academic Family Medicine**

Akshay Rajaram*, MD, MMI, CCFP; Michael Judd; David Barber, MD, CCFP

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Describe the key methodologic elements of an algorithm and validation study
2. Differentiate between recall, precision, and accuracy and describe their meaning in AI research
3. List two ways AI could improve practice management in family medicine

Description:

Our primary objective was to develop a machine learning model capable of predicting diagnosis and billing codes from notes recorded in the family medicine electronic medical record. We conducted a retrospective, single centre, algorithm development and validation study at an academic family health team. All visits between July 1, 2015 and June 30, 2020 containing a note in the electronic medical record and an invoice that was submitted to the Ontario Health Insurance Plan (OHIP) for payment were eligible for inclusion. Patients who did not grant prior consent for their personal health information to be used in research and physicians who opted out were excluded. We abstracted structured and unstructured data from the OSCAR electronic medical record. Following acquisition, we deidentified and anonymized the data and divided them into training (80%) and test (20%) sets. We derived two neural networks to predict unique diagnosis codes (n=496) and billing codes (n=189). We compared model predictions to the codes submitted for reimbursement and calculated accuracy, recall (sensitivity), precision (positive predictive value), F1 score and AUC. 245,045 visits were eligible for inclusion and 198,802 (81%) were included in model development representing 16,312 unique patients. Accuracy was 99.8% for the diagnosis code model and 99.6% for the billing code model. Recall was 43.0% and 65.0% for the diagnosis and billing code models, respectively. Precision was 65.8% and 76.7% for the diagnosis and billing code models, respectively. AUC was 0.715 for the diagnosis code model and 0.825 for the billing code model. We developed two machine learning models capable of predicting diagnosis and billing codes from the electronic medical record notes of a single academic family health team. The billing model outperformed the diagnosis model. Further work is needed to assess generalizability of these models to other family medicine practices.

Abstract ID: 351**Management's Effect on Health Care Organizations' Policy Adaptation**

Sian Hsiang-Te Tsuei*, MD, MHSc, CCFP; Winnie (Chi-Man), MD, MHSc, CCFP

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Identify which management characteristics may affect health care organizations' responsiveness to payment reform
2. Identify how triple differencing can inform program evaluation

3. Recognize how policymakers use payment reform methods to induce health system efficiency

Description:

Context: Given the limited health system resources, policymakers often rely on shifting financial risks to providers to improve health system efficiency. However, how organizational features enable effective response to reforms is often understudied. **Objective:** We aimed to identify managerial characteristics that improve hospitals' response effectiveness to payment reforms. **Setting, Intervention, and Participants:** We conducted a matched-pair, cluster randomized controlled trial in Guizhou, China between 2014-2018 that shifted the payment method in the New Cooperative Medical Scheme (NCMS) for hospitals from fee-for-service to prospective global budget. The dataset captured claims data for 2,818,774 episodes of admission, and management and administrative details for 52 hospitals across 16 pairs of counties. The study is exempt from local Research Ethics Review Board. **Design and Main Outcome Measures:** Using the World Management Survey, we categorize hospitals' baseline management capacity according to four theoretically informed and empirically supported management characteristics—goal specificity, goal difficulty, feedback, and standardization. We then applied the triple differencing approach to examine how the management characteristics moderated the impact of payment reform. We expect better management capacity to be associated with lower NCMS, higher out-of-pocket, and ambiguous total expenditure per admission. We checked for robustness by varying the specification of time and management variables. **Results/Findings:** Goal difficulty was significantly associated with lower expenditure growth across all three parameters. Standardization was associated with lower out-of-pocket and total expenditure growth. Goal specificity and feedback demonstrated no consistent and significant associations. **Conclusion:** Setting appropriate goal difficulty can augment organizational adaptation to payment reforms. Health care organization leaders may lean on accurate assessments of organizational and staff capacity to generate appropriately challenging goals. Standardization may be associated with better adaptation via development of an alternative revenue source, but this was not definitive. Goal specificity and feedback were not significant moderators.

Abstract ID: 323

MD Student Advocacy Showcase: Supporting patients in their communities

Azadeh Moaveni*, MD, CCFP, FCFP; Sharonie Valin, MD, CCFP; Kristen Candlemire

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Describe the DFCM clerkship advocacy project journey
2. Explore the role of the faculty physician advocacy advisor in facilitating this clerkship project experience
3. Demonstrate the impact of the advocacy showcase from the lens of the clerkship student

Description:

Context: In 2021-22, University of Toronto's Department of Family and Community Medicine Undergraduate team introduced a mandatory longitudinal clerkship advocacy project as part of the core Family Medicine clerkship rotation. The project focused on one patient (of a panel of

patients) with a health issue for which external psychosocial factors exist and included researching, planning and executing a longitudinal advocacy-related intervention for that patient. Students were provided the opportunity to work with a faculty advocacy advisor to guide project development. The advocacy projects demonstrate the CanMEDS Advocacy role in action and will be showcased at a virtual event on June 23, 2022. **Design:** The advocacy showcase is the culmination of the longitudinal learning/application experience for students. Project objectives will be highlighted with emphasis on experience/ impact from the lens of students and faculty physician advocacy advisors. Incorporation of a 'social determinants of health framework' will be demonstrated from the perspective of informing students' awareness of external factors that influence health and evidenced in the project foci/presentations. **Setting:** The format of the advocacy showcase event will be illustrated with themes/highlights pertaining to project focus, student and faculty experience, and perceived impact for patients & families. **Participants:** Clerkship students, family medicine faculty physicians, primary care/community team members. **Main Outcome Measures:** description of advocacy project foci; impact on patient/student/practice; sustainability/spread of tested interventions. **Results/Findings:** Showcase participant evaluations; advocacy project faculty assessments; clerkship student reflection; forecasted impact on 2022-2023 project & showcase. **Conclusion:** The CanMEDS advocate role describes the responsibility of family physicians to use their expertise/influence to advance the health and well-being of individual patients, communities, and populations. Engaging undergraduate medical learners in an advocacy-focused project within family medicine highlights the impact of a learning opportunity and the possibilities for positive change for patients and families.

Abstract ID: 325

Mitigating Occupational Stressors: Project design by family physicians

Colleen Grady*, DBA; Mary Martin, MSc; Dave Pinkerton, MD, CCFP;
Laura Di Quinzio, MD, CCFP

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. define the top two identified occupational stressors for family physicians
2. describe the value of using an Appreciative Inquiry approach
3. describe interventions suggested by family physicians to address burnout in their workplace

Description:

Context: Burnout among Family Physicians (FP) has a significant personal impact (exhaustion, disengagement, and relationships) and can also lead to issues related to patient safety and access to care. Though the sources of burnout among FP are known, gaps in knowledge remain regarding solutions that may be implemented within organizations. **Objective:** To explore the top two occupational stressors leading to burnout among FPs (patient expectations and administrative obligations) and to design a project in collaboration with FPs to test an intervention which will address one of these stressors and measure the impact on workplace stress. **Design:** Qualitative study involving focus groups and interviews with FPs using an appreciative inquiry framework. Analysis used a grounded theory approach, iterative in nature and consistent with the AI 4-D cycle (Discovery, Dream, Design, Destiny). **Setting:** Family health organizations (FHOs) in the Kingston,

Frontenac, Lennox and Addington (KFLA) region. **Participants:** Practicing FPs recruited using an emailed invitation in conjunction with the lead physician at each FHO, as well as mailed paper invitations. **Main Outcome Measures:** Experiences of burnout; potential interventions to inform long-term solutions to workplace stress; critical elements to include in a subsequent study. **Findings:** One focus group with 4 participants, and 4 interviews were conducted (n=8). Though FP felt their work was meaningful, burnout was common. FP agreed that unrealistic patient expectations was the most significant source of workplace stress but that an intervention to address administrative obligations was more feasible. Scribes, IT (EMR) solutions and system-level regulations were proposed interventions. **Conclusion:** Burnout at work was common among FPs. Though unrealistic patient expectations were identified as the top source of stress, many felt an intervention to address this would not be successful. Next steps include developing a study to test an intervention which addresses the burden of administrative obligations in partnership with FPs.

Abstract ID: 328

Normalizing Advance Care Planning Conversations in Primary Care

Shannon L. Roberts*, PhD; Susan Joyce, MB, CCFP, FCFP; Anita Greig, MD, CCFP, FCFP; Fereshte Lalani, MD, CCFP; Liad Salz, MD, CCFP; Gili Rosen, MD, CCFP, FCFP; Rosanna Macri, MHSc, Q.Med

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Describe the key components of advance care planning (ACP) conversations and why they are important
2. Identify barriers and potential solutions to ACP in primary care
3. Apply lessons learned to improve the quantity and quality of ACP conversations in clinical practice

Description:

Context: The COVID-19 pandemic has highlighted the importance of advance care planning (ACP) for adults of all ages. However, few Canadians have had ACP conversations with their family physicians. **Objective:** To develop an intervention guided by a primary care team to improve the quantity, quality and consistency of ACP conversations with their patients. **Design:** Quality improvement project using complex adaptive system thinking. This is the pre-implementation study. Approval was received through the Quality Management process at the participating hospital. **Setting:** Family practice group in midtown Toronto, Ontario. **Participants:** Five family physicians recruited through convenience and snowball sampling. **Main Outcome Measures:** (1) Semi-structured focus groups: determine success criteria for and decide on the intervention; (2) retrospective chart review (n=200): determine the quantity, quality and consistency of ACP conversations with patients aged ≥65 years documented over the past 3 years; and (3) develop the intervention. Thematic analysis was used to analyze qualitative data. **Results:** During the focus groups, participants decided on the intervention that would meet the success criteria: (1) electronic medical record (EMR) prompts as reminders to initiate or continue the ACP conversation; and (2) e-form to easily reference and document the ACP conversation over time in one location in the EMR. An e-form was developed based on our literature review. In the retrospective chart review, 17 patients (8.5%) had documented ACP conversation(s) with their

family physician and four patients (2.0%) with a specialist. ACP documentation was found in multiple locations in the EMR. ACP conversations focused mainly on the patient's future care wishes (e.g., code status/goals of care), rather than illness understanding, values and life goals. **Conclusion:** We developed a scalable intervention to help normalize ACP conversations in primary care. Our future study will implement the intervention and evaluate its impact on the quantity, quality and consistency of ACP conversations.

Abstract ID: 362

Opioid Use Disorder and Access to Primary Care

Sheryl Spithoff, MD, MSc; Lana Movic*, BSc; Susan Hum, MSc; Chris Meaney, MSc; Rahim Moineddin, MSc; Tara Kiran, MD, MSc

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Describe the importance of high quality primary care for marginalized groups
2. Recognize that family practices discriminate against people with OUD who are seeking care
3. Discuss practices that address bias and improve access for people with OUD

Description:

Context: People with opioid use disorder (OUD) are less likely than others to have a primary care provider. **Objective:** To determine if family physician practices discriminate against people with OUD seeking a new patient appointment. **Design:** We conducted a randomized controlled trial where a patient actor made unannounced telephone calls between June and September 2021 to family physician practices to ask for a new patient appointment. In the first randomly assigned scenario, the patient actor stated they were a patient with diabetes seeing an endocrinologist and, in the second scenario, a patient with OUD seeing an addition physician. This work was approved by the Women's College Hospital Research Ethics Board. **Setting:** Ontario, Canada. **Participants:** We randomly selected 731 practices, 383 of whom met our inclusion criteria. **Main Outcome Measures:** Primary outcome was an unconditional offer of a new patient appointment. In a secondary analysis, we compared the proportions of patients offered an appointment stratified by gender, population, model of care, and years in practice. **Results:** We found that a greater proportion of practices offered a new patient appointment to a caller with diabetes (11.4%) than OUD (4.0%) (absolute difference 7.4%; 95% CI: 2.0 to 12.64; p-value 0.007). In the secondary analysis, we found that physicians with more than 20 years in practice were almost 13 times more likely (0.9% vs 11.9%, absolute difference 11.0; CI 18.1 to 3.8; p-value 0.001) to offer an appointment to a caller with diabetes compared to OUD. Women were almost five times more likely (2.7% vs 12.3 %, absolute difference 9.6%; CI: 16.3 to 2.4; p-value 0.007) to offer an appointment to a caller with diabetes than OUD. **Conclusion:** Discrimination by family physician practices is a barrier to primary care for people with opioid use disorder. Policymakers and physicians should address bias and improve access.

Abstract ID: 360

Ontario eConsult Utilization in Rural vs. Urban Settings

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Compare the proportion of rural vs. urban eConsults in each Ontario Health Region
2. Evaluate utilization data and results from a close-out survey for rural vs. urban eConsults
3. Explore eConsult's impact on equity of access in rural Ontario across different health regions

Description:

Objective: To determine the proportion of rural vs. urban eConsults in each Ontario Health (OH) Region as well as the number of providers, specialty distribution, response interval, time billed, and results from a close-out survey. **Design:** Retrospective, cross-sectional descriptive analysis **Setting:** Ontario, Canada **Participants:** 72,948 eConsults submitted through Ontario eConsult Service (OES) between January 01 – December 31, 2021. **Intervention:** The OES allows clinicians to securely access asynchronous specialist advice in Ontario through the Ontario Telemedicine Network. **Main Outcome Measures:** The proportion of rural vs. urban eConsults in OH regions were identified using the forward sortation area (FSW) of the primary organization for each requesting provider. FSWs with 0 as the second character were identified as rural and values 1-9 were identified as urban. **Results:** 10% (n=7550) of eConsults were submitted by 591 providers with a rural FSW. 1.74 eConsults per 1000 residents were sent by rural providers in OH North and 0.98, 0.62, 0.05 and 0.0 per 1000 residents in OH Regions West, East, Central and Toronto respectively. The top four specialties for both rural and urban eConsults were Dermatology, Obstetrics/Gynecology, Hematology & Allergy/Clinical Immunology. For both rural and urban eConsults, the median specialist response time was 1.0 days and the median specialist time spent was 15 minutes. In 76% of rural eConsults, specialist appointments were avoided vs. 75% in urban. In 58% of rural eConsults, providers indicated that they received good advice for a new/additional course of action vs. 54% in urban cases. **Conclusion:** Rural and urban eConsults had similar results for specialty distribution, time spent, response interval and survey results. The OES is successfully improving equity of access in rural Ontario across different health regions. Further research should determine clinical content and types of questions that are being asked by rural vs. urban providers.

Abstract ID: 368

Optimizing Referrals and Preventative Care at a Postpartum Health Clinic

Roslyn Mainland*, BMSc; Aakriti Pyakurel, MPA; Sarah Whyte, PhD; Rachel Walsh, MD, MSc;
Karen Fleming, MD, MSc

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Describe the barriers that obstetrical care providers (OCPs) face in referring to the 4P clinic
2. Understand OCPs perspectives on optimal postpartum and preventative care
3. Identify ways to optimize service to patients and referring physicians at the 4P clinic

Description:

Hypertensive disorders of pregnancy (HDP) are common and increase a woman's risk of cardiovascular disease (CVD). The 4P Postpartum Maternal Health Clinic (4P Clinic) is a primary prevention clinic at a health sciences center in Toronto that assists women with HDP to mitigate their CVD risk through education. However, only 20% of eligible women were referred to the 4P Clinic between 2014 and 2016. To better understand low referral rates, we evaluated barriers that obstetrical care providers (OCPs) face in referring to the 4P Clinic and inquired about their perspectives on optimal postpartum and preventative care. We conducted semi-structured interviews in 2020. We asked about referral rationales and perspectives on mitigating CVD risk. We analyzed themes using an inductive approach. This study is exempt from the institution's Research Ethics Review board. The study was completed at an academic health sciences center in Toronto. We interviewed eight obstetricians, five family physicians, and three midwives. We identified three perceived barriers to referring: 1) OCPs believe that patients typically do not appreciate the risk of CVD associated with their HDP; 2) there are conflicting opinions, within and between specialties, about the perceived value of the 4P Clinic; and 3) OCPs feel unfamiliar with the scope of and referral process for the 4P Clinic. Two suggestions were proposed for the structure of the 4P Clinic: 1) patients having the autonomy to self-refer may increase attendance rates; and 2) a virtual clinic may overcome certain patient barriers to accessing postpartum care. Increased awareness among OCPs, giving patient the ability to self-refer, and a virtual clinic format may increase referral and attendance rates at the 4P Clinic. Provider feedback obtained through this study will inform changes made to the 4P Clinic in order to provide effective, efficient care for the mitigation of future CVD risk.

Abstract ID: 19

Outcomes of a Decision-Making Capacity Assessment Model

Lesley Charles*, MBChB, CCFP (COE); Utkarsha Kothavade, MD; Suzette Bremault-Phillips, PhD; Karenn Chan, MD, CCFP (COE); Bonnie Dobbs, PhD; Peter Tian, MD; Sharna Polard, MLIS; Jasneet Parmar, MBBS, COE; Pollard Sharna

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Review the capacity assessment process, capacity assessment worksheets, forms and schedules used in DMCA
2. Consider fidelity to capacity assessment process
3. Consider outcomes of utilizing capacity assessment process

Description:

Background: With an increasing elderly population, the number of persons with dementia is expected to increase and, consequently, the number of persons needing decision-making capacity assessments (DMCA). However, many healthcare professionals do not feel ready to provide DMCA. Since 2006, we implemented a DMCA Model which includes a care pathway, worksheets, education and mentoring. This study assesses the impact of the utilization of this patient-centered DMCA model on the need for Capacity Interviews. **Methods:** This was a retrospective quality assurance chart review of patients referred for DMCA to the Geriatric Service at the Grey Nuns Community Hospital from 2006-2020. We extracted patient demographics, elements of the DMCA process, and whether capacity interviews were performed. We used

descriptive statistics to summarize the data. **Results:** Eighty-eight patients were referred for DMCA, with a mean age of 76 years (SD=10.5). Dementia affected 43.2% (38/88) of patients. Valid reasons for conducting a DMCA were evident in 93% (80/86) of referrals and DMCA were performed in 72.6% (61/84). 85.3% (58/68) of referrals identified the need for DMCA in two to four domains, most commonly accommodation, healthcare, and finances. Two to three disciplines, frequently social workers and occupational therapists, were involved in conducting the DMCA for 67.2% (39/58) of patients. The Capacity Assessment Process Worksheet was used 63.2% of the time. Capacity Interviews were conducted in only 20.7% of referrals. Following the DMCA, 48.2% (41/85) of those assessed were deemed to lack capacity. **Conclusions:** This study suggests that the DMCA Model implemented has decreased the need for Capacity Interviews while simultaneously respecting patient autonomy. This is an important finding as DMCA carried out following this process reduced the need for both a Capacity Interview and declarations of incapacity while simultaneously respecting patient autonomy and supporting them in their decisions in accordance with the legislation.

Abstract ID: 364

Outcomes of Health Technology Assessment Organizations' Guidelines: Work-in-progress

Ashkan Baradaran*, MD; Raymond Tolentino; Samira Abbasgholizadeh Rahimi, Eng, PhD; Roland Grad, MD, MSc; Isabelle Ganache, PhD; Genevieve Gore, MLIS; Pierre Pluye, MD, PhD

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Define Health Technology Assessment (HTA) organizations
2. Distinguish outcomes of HTA organizations' guidelines and recommendations
3. Measure outcomes of these guidelines and recommendations

Description:

Context: Health Technology Assessment (HTA) organizations determine the value of health technologies such as devices, medications, and tests. They guide clinicians and decision/policy-makers, and promote equitable and efficient health services and policies. They are funded by governments and publish knowledge translation products such as guidelines. **Objectives:** To explore and measure the outcomes of HTA organizations' guidelines and recommendations in community-based primary health care. **Design:** A systematic mixed studies review (including qualitative, quantitative, and mixed methods studies) is performed. Published literature has been retrieved through searches of five databases. Studies are selected by two independent reviewers. Included studies reported outcomes of HTA organizations' primary care text-based guidance. Methods of included will be appraised. **Setting:** Community-based primary care. **Participants:** Family physicians, general practitioners, and patients. **Main Outcome Measures:** Users' satisfaction, use of information within administrative and clinical activities, and improvement of health services and patient health (mental, physical, and social well-being). **Results:** A total of 5996 records were retrieved. After de-duplication, the selection process started with 4377 articles. In the title and abstract screening, the reviewers had a 97% agreement (Cohen's Kappa=0.81, $P<0.001$). The full-text screening started with 336 studies. In order to discover and measure outcomes of interest, a 2-phase sequential data synthesis will be performed. Phase-one: We will conduct a qualitative content analysis and concept mapping (identifying outcomes -themes- and

their relationships -map-). Phase-two: We will perform meta-analyses per type of outcomes. When meta-analysis is not feasible, we will provide descriptive statistics. **Conclusion:** Results of this systematic review will provide an innovative conceptual framework explaining the outcomes and their relationships, and estimate the likelihood and importance of these outcomes. They will contribute to knowledge on HTA organizations, and inform clinicians and health services-related decision/policy-makers.

Abstract ID: 355

Partnering With Indigenous Elders: A prospective cohort study

David Tu*, MD, CCFP, FCFP; Amy (Amandeep) Gill, BSc Hons; Claudia Langemeyer, BSc

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Describe relationships between colonization, traditional Indigenous healing, and Indigenous people with opioid use disorder (OUD)
2. Describe “Partnering with Indigenous Elders (PIE) Study” design, context, participant characteristics and interim study results
3. Discuss impacts of connecting Indigenous people living with OUD with Indigenous Elders and cultural programs

Description:

Background: Indigenous Peoples of Canada possess a wealth of diverse healing traditions, however, the current experience for many Indigenous people is one of disconnection from these traditions. This is manifested, in part, by increased rates of Opiate Use Disorder (OUD) and disproportionate rates of opioid overdose deaths. **Research Goal:** To measure the impacts on Indigenous people living with OUD of having encounters with Indigenous Elders and cultural programs as part of routine primary care. **Setting & Intervention:** This research was conducted at an Indigenous focused health center located in Vancouver’s Downtown Eastside. Study participants were invited to connect with an Indigenous Elder and/or participate in a variety of cultural programs. **Study Design:** Prospective cohort study design with quantitative measures at baseline, one-, three-, and six-months post-intervention and qualitative measures at five months. Emergency room utilization 12 months pre-enrollment and 12 months post-enrollment was also collected. **Study Participants:** Adult Indigenous people living with severe OUD who are connected to primary care and interested in connecting with an Indigenous Elder, but have not done so in the preceding 12 months. **Data Analysis Methods:** A per-protocol analysis was used. Statistical tests were used to compare means from all outcome measures before and after intervention, with a constant comparative grounded theory approach of participant narratives for the qualitative component of the study. **Results:** 52 participants were enrolled in the study. The mean age was 47. 40% identified as female and 34% had stable housing. 58% had one or more parents attend residential school, and 63% had direct experience with the foster care system. At baseline, 84% were receiving Opiate Agonist Therapy with 10% experiencing an overdose in the past month. The mean number of non-prescription opioid-using days were 15 of the past 30. Quantitative and qualitative outcomes will be shared during the study presentation.

Abstract ID: 367

Patient Segmentation and Diabetes Patient Support Groups: Work-in-progress

Rebecca Theal*, BSc; Alessia Paglialonga, PhD; David Barber, MD, CCFP; Robert Kyba, BSc; Aziz Guergachi; Karim Keshavjee, MD, CCFP, MSc, MBA

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Describe patient segmentation
2. Compare patient reported outcomes between patients in the "medication" and "lifestyle" segments
3. Evaluate patient segmentation as a potential approach to tailor interventions for type 2 diabetes

Description:

Context: Segmentation techniques are applied in marketing but not fully explored in healthcare. New approaches to patient segmentation might help tailor interventions and communication more specifically to patient needs. **Objectives:** To develop a peer-to-peer workshop intervention for patients with type 2 diabetes (T2D) with poor diabetes control by grouping patients from specific segments. **Design:** Pilot intervention **Setting:** Eastern Ontario Network (EON), a practice-based research network and repository of electronic medical record data drawn from primary care practices from across south-eastern Ontario. **Population:** Patients aged 40 and older with T2D from a primary care clinic within EON. **Intervention:** Moderated virtual peer-to-peer workshops were held with patients with good and bad control from within and across segments. **Main Outcome Measures:** Segments were identified using k-means clustering on medication data from primary care electronic medical records (N = 825). Patients with good and bad control of disease were identified based on A1c, LDL, and BP. Patient reported measures were collected at baseline, immediately post-workshops, and at one week and one month follow-ups. Ethics approval was obtained from Queen's University HSREB. **Results:** Two opposite segments were identified: patients who tend to take several medications ("medication" segment: ~32%) and patients who do not take diabetes-specific medications ("lifestyle" segment: ~15%); the remaining patients were from intermediate segments. Preliminary results from the first three (of six) workshops (medication, lifestyle, and mixed group) showed that patients in the lifestyle segment were more interested in diabetes control strategies and reported better learning experience and higher motivation to set a goal than those in the medication segment. **Conclusions:** Initial results from this pilot study indicate peer-to-peer virtual workshops involving patients with good and bad control of disease may support patient learning and motivation in patients from the lifestyle segment. Outcomes from all workshops will be described.

Abstract ID: 331

Pediatric Influenza Vaccination Uptake and Intentions in Canada

Rupesh Chawla*, MD, MSc, FRCPC; Wendy Boivin, PhD; Bertrand Roy, PhD

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Examine the perception of the importance of pediatric influenza vaccination

2. Explore the role of health care providers, such as general practitioners, in influenza vaccination

Description:

Design: A national online, cross-sectional survey of the parents of children perceptions of the importance of pediatric influenza vaccination. **Setting:** An online survey of parents of children between the age of 6 months and 17 years was conducted through Leger between February 10-19, 2022. **Participants:** All 1,500 respondents were adult residents of Canada who were parents or guardians of at least one child between the ages of 6 months and 17 years on September 1, 2021. **Results:** Key findings of this research included: 1. A lack of perceived threat of influenza; 2. Parents' influenza vaccination status strongly correlated to children's influenza vaccination status; 3. Health care providers (HCPs), including general practitioners (GPs), were key to increasing influenza vaccination rates among children. Thirty percent of Canadian children received influenza vaccination every year, while 50% never did. There was a strong correlation between parents' vaccination status and their child's, with 92% of parents who never received an influenza vaccine saying their child never did as well. Survey respondents that spoke to any HCP about influenza vaccination, were more likely to get their child vaccinated, with 66% reporting that a recommendation from their child's HCP was a reason for doing so. Conversely, 29% of those whose child did not receive an influenza vaccine said not having this discussed by their child's HCP was a reason for not receiving the vaccine. **Conclusion:** Canadian parents perceive a lack of threat of influenza for their children. GPs have the opportunity to increase vaccination awareness and uptake rates in adults, as well as in the high risk (6 to 59 months) and general pediatric population, through direct communication with patients and their parents.

Abstract ID: 388**Pediatric-Care Provider-Led Social Determinants of Health Screening**

Alison Eyre*, MD CM, CCFP, FCFP; Janice Cohen, PhD; Sarah Funnell, MD, MSc, CCFP, FRCPC; Lynsey James; Sheena Gulgani, Msc.; Hounaida Abi Haidar, PhD; Lindy Samson, MD, FRCPC; Michelle Ward, MD, FAAP, FRCPC; Radha Jetty, MD, FAAP, FRCPC; Doug Archibald, PhD; Megan Harrison, MD, FRCPC; John Lyons, PhD; Leigh Frasier-Roberts, MD; Soha Khorsand; Sue Bennett, MB, ChB, FRCP, DTM&H, DRCOG, DCH, Dip Psych; Tobey Audcent, MD, FRCPC, DTMH

Learning objectives:**At the conclusion of this activity, participants will be able to:**

1. Describe why social determinants of health are relevant in our pediatric population
2. Describe some of the issues for acceptability and feasibility of screening our pediatric patients
3. Describe some of the barriers to screening for SDH in our pediatric population

Description:

The Social Determinants of Health (SDH) have been closely linked to health outcomes and well-being in later life, as well as patients' abilities to comply with recommended treatments and resource utilization. The pediatric population poses a unique challenge as patients are uniquely vulnerable and not necessarily in a position to advocate for themselves. However, complex SDHs

may not be easily recognized by healthcare providers and can be difficult to describe. Multiple authors (1) have suggested and/or developed tools to screen for SDH factors. However, these tools tend to be detailed and too long for use in busy clinical settings. The aim of this study was to better understand the acceptability, and feasibility to the use of an integrated brief paediatric specific screening tool by health care providers in primary care settings and hospital clinics. Semi-structured interviews were conducted with 14 health care providers, recruited by purposive convenience sampling. All interviews' transcripts were independently analyzed by two study members in an inductive thematic analysis fashion using NVivo12. Most participants identified the need to understand the impact of SDH on their paediatric population and almost all commented on the acceptability of such a tool. Most participants expressed how important the logistical issues of a tool (by whom, when and how to administer) are. They also cautioned against its potential risks (privacy, risk to confidentiality, judgement, and lack of health literacy). Overall, they agreed that a routine provider-led integrated paediatric care tool to screen for SDH is important and would be both acceptable and feasible. 1. ACES ref Felletti et al, Brown et al Am jOurnal prevent Med 2009 37:389-96 CMAJ, WHO commission on SDH 2008 Lee Fors Jones Social paediatrics 2008 PICH Taylor S 2008 Lancet 372 1161-69

Abstract ID: 378

Physical Activity During Pregnancy: A qualitative systematic review

Helena Piccinini-Vallis*, MD, PhD, CCFP, FCFP; Regan McKeough, MSc; Chris Blanchard, PhD

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Describe pregnant women's perceived barriers to physical activity during pregnancy
2. Describe pregnant women's perceived enablers to physical activity during pregnancy
3. Recognize the steps required for a systematic review of the qualitative literature

Description:

Objectives: To identify and synthesize pregnant and postpartum women's perceptions of barriers and enablers to physical activity, specifically during pregnancy. **Design:** This was a systematic review of the qualitative literature on pregnant and postpartum women's perceptions of barriers and enablers to physical activity during pregnancy. **Methods:** MEDLINE, PsycINFO, CINAHL, and EMBASE were searched systematically to identify qualitative studies investigating pregnant or postpartum women's perceptions of barriers and enablers to physical activity during pregnancy. Included studies were published from 1985 onward and limited to populations of pregnant or postpartum women. Data quality was assessed using the Critical Appraisal Skills Programme Qualitative Research Checklist. Data were extracted using NVivo software and subsequently mapped on the COM-B framework. **Results:** Twenty-five qualitative studies were included in this systematic review. Sixteen themes were identified that mapped onto six components of the COM-B framework. Commonly reported barriers to physical activity during pregnancy included pregnancy symptoms, lack of knowledge of what constitutes safe activity, and the opinions of women's social circles. Commonly reported enablers to physical activity during pregnancy were social support and the experienced benefits, including the physiologic, psychological, and social benefits. **Conclusion:** The results of this systematic review have clinical implications for perinatal care providers, as the overall benefits of physical activity during pregnancy have been well

documented in previous studies. The authors recommend clinicians aim to explore pregnant women's perspectives on physical activity during pregnancy in order to be able to address their perceived barriers and enablers to physical activity during pregnancy.

Abstract ID: 201

Primary Care Embedded Within Permanent Supportive Housing

Laura MacKinnon*, MD, CCFP; Nick Kerman, PhD; M. Eugenia Socías, MD; Rupinder Brar, MD; Geoff Bardwell, PhD

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Review of evidence for housing interventions for marginally-housed people who use drugs and alcohol
2. Understand barriers and facilitators to primary care access for people in permanent supportive housing
3. Discuss novel model of primary care delivery for people in permanent supportive housing

Description:

Marginally-housed people who use drugs and alcohol (PWUD/A) face barriers in accessing healthcare, which may be improved by providing healthcare in housing settings. This study examines the experiences of healthcare access among people who live in permanent supportive housing with an embedded clinic. Thirty qualitative interviews were conducted with participants who accessed onsite care regularly and those who do not. Participants who accessed the onsite clinic reported benefiting from stigma-free care. Close proximity and convenience of drop-in appointments enabled participants to engage with healthcare more consistently, though operation hours and privacy concerns were barriers for others. Participants who did not use the onsite clinic highlighted the importance of continuity of care with their pre-existing clinic, particularly if it was in close proximity. Shared perspectives across all participants emphasized the importance of low-barrier services, including medication delivery, convenience, and positive therapeutic relationships. Our findings suggest that embedding primary care within supportive housing benefits PWUD/A who have previously encountered barriers to healthcare.

Abstract ID: 296

Protect Your Parts - Improving asymptomatic STI screening: Work-in-progress

Alexia De Simone*, MD CM, MSc; Madison Meehan*, MD CM; Janet Chan, MD CM, MPT; Charlotte Martin, MD, BSc; Justin Morin, MD, BSc; Tatiana Shorstova, PhD; Keith Todd, MD, PhD; Deborah Golberg, MD; Ton-Yee Quan, MD CM

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Explore awareness among Family Medicine Residents regarding current guidelines on STI screening among asymptomatic patients

2. Measure trends in cervical and urine tests ordered by residents following a quality improvement intervention
3. Recognize the barriers for Family Medicine residents regarding STI screening

Description:

In April 2021, the Canadian Task Force on Preventive Health Care (CTFPHC) published a guideline recommending yearly screening for chlamydia and gonorrhea for all sexually active patients under 30 years of age. Baseline evaluation of resident practice in our clinic revealed relatively low rates of screening therefore, we created an intervention to improve uptake of this guideline. **Objective:** To increase chlamydia and gonorrhea screening requested by family medicine residents for asymptomatic sexually active 13-30 years old patients in resident ambulatory clinics. **Design:** Quality improvement (QI) initiative using resident surveys and anonymous data extracted from our electronic medical record. As this was a QI project, it was exempt from research ethics review. **Setting:** Ambulatory, university-affiliated, family medicine clinic. **Participants:** 20 first- and second-year family medicine residents at the Herzl Family Practice Centre, Montreal. **Intervention:** We surveyed residents pre- and post-intervention in order to understand barriers to STI screening. Our primary interventions were a didactic teaching session on the guidelines and monthly electronic reminders. **Main Outcome Measure:** Number of cervical and urine tests ordered by family medicine residents in sexually active, asymptomatic patients between 13 and 30 years of age. **Results/Findings:** In a pre-intervention survey, 40% of residents were not aware of the April 2021 CTFPHC STI screening guidelines and 83% noted that “time” was the greatest barrier to screening. Screening increased following our educational intervention, and data collection is ongoing. **Conclusion:** As a work-in-progress project with preliminary data, we find that barriers persist in residents’ implementation of national screening guidelines. Future adjunctive interventions, such as providing patient information in the waiting room could facilitate screening in resident clinics.

Abstract ID: 295**QRCode Integration for Clinics During COVID-19 Pandemic**

Meladul Ahmadzai*, PGCert

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. What is a QRCode?
2. QRCode demonstration
3. Solution poster

Description:

During the global pandemic, medical clinics must do all they can to prevent the transmission of Covid-19. In this poster presentation, Family Physicians will be presented with a QRCode solution, demonstration of QRCode, and a poster design. Family physician will walk away with insights on how to integrate QRCode solution in their facilities.

Abstract ID: 306

Quality Assurance of ED Ultrasound Documentation in a Regional Centre

Katherine Klassen*, MB, BCh, BAO; Anson Dinh, MD; Emmett Harrison, MD; Adam Clay; Michael Kapusta, MD, CCFP

Description:

Context: Emergency department ultrasound (EDUS) requires ongoing quality assurance due to the “high stakes” of diagnostic accuracy needed. Previous work in a Saskatchewan tertiary hospital provides a framework to perform quality assurance. By first ensuring sufficient documentation of EDUS, these investigators assessed for concordance between video captured EDUS and documented findings which provided insight into the diagnostic accuracy of EDUS. To analyze the diagnostic accuracy of EDUS in a Saskatchewan rural hospital, sufficient documentation must first be obtained. **Objective:** Determine the percentage of EDUS scans conducted by emergency physicians in the Cypress Regional Hospital (CRH) emergency department that have appropriate documentation. **Design:** A retrospective study of all emergency physician documents with a discharge diagnosis that likely required EDUS was performed. The Standards for Emergency Ultrasound in Saskatchewan – 2019 were used to determine if EDUS was documented correctly. The project was approved by the Biomedical Research Ethics Board of the University of Saskatchewan. **Setting:** Regional emergency room in southwestern Saskatchewan. **Main Outcome Measures:** Correct documentation of EDUS according to the Standards for Emergency Ultrasound in Saskatchewan – 2019. **Results:** The project reviewed 749 charts from June – December 2020 at CRH and identified 64 charts that yielded EDUS documentation. Emergency physicians at CRH correctly documented EDUS findings in 63% (40/64) of cases. Errors identified in documentation can be divided into three categories: missing required clinical documentation (16/64, 25%), not disclosing the type of anatomical scan performed (11/64, 17%), and not documenting indeterminate findings (5/64, 8%). **Conclusion:** The analysis of documentation error types will be used to help inform the CRH emergency physicians on their documentation mistakes and guide further interventions to improve EDUS documentation. Following the intervention, reanalysis of EDUS documentation will be performed to see if it is sufficient to assess concordance between video captured EDUS and written findings.

Abstract ID: 373

Reflections on Providing COVID-19 Virtual Care: Work-in-progress

Tania Johannsen*, MD, MSc; Susan O'Rinn; Katherine Stead, MD, CCFP; Philip W. Lam, MD, MSc, FRCPC; Karen Fleming, MD, MSc, CCFP; Perti Papneja, MD, CCFP

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Describe healthcare providers' experiences of providing virtual care to newly positive COVID-19 patients
2. Describe the social determinants of health's impact on COVID-19 patients from a healthcare provider perspective
3. Apply lessons learned from this study to similar settings and scenarios

Description:

Context: The COVID-19 pandemic ignited the implementation of digital technologies, transforming the delivery of healthcare. Virtual care became especially important for newly diagnosed COVID-19 patients who were required to isolate. To meet this need, Sunnybrook Health Sciences Centre (SHSC) (Toronto, Canada) developed COVIDEO, a virtual program that provided counselling and monitoring to newly diagnosed COVID-19 patients. **Objective:** The primary purpose was to describe healthcare provider (HCP) experiences providing virtual care via COVIDEO to recently diagnosed COVID-19 patients. The secondary purpose was to understand the impact of the social determinants of health (SDOH) on these patients from a HCP perspective. **Design/Setting/Participants:** A qualitative narrative approach was utilized. Stratified convenience sampling was used until saturation. Participants completed a demographic questionnaire and a semi-structured telephone interview. Interviews were recorded, transcribed, anonymized, and analysed using thematic analysis. SHSC's Research Ethics Board approved this study (#5052). **Main Outcome Measures:** The primary outcome was HCP experiences of providing COVIDEO care to newly diagnosed COVID-19 patients. The secondary outcome was HCP perceptions of the impact of the SDOH on COVIDEO patients. **Results/Findings:** 24 interviews were conducted with HCPs from primary care and other specialties between Oct/21-Feb/22. Preliminary analyses identified five main themes that described HCP experiences and reflections: 1) Altruistic Impetus: desire to make a difference; 2) The Importance of Teamwork; 3) Program Success and Failures; 4) Organizational Support; 5) System Gaps: deficits in healthcare resources. Participants identified three main themes related to the SDOH on COVIDEO patients: 1) Two Tiered Pandemic; 2. Compounded Effects of SDOH; 3. Increased Awareness of SDOH. **Conclusion:** These findings contribute to a greater understanding of HCP experiences of providing virtual care to patients during a pandemic and the impact of the SDOH on both patients and providers. This knowledge may help guide the delivery of healthcare in the future.

Abstract ID: 312

Teaching Opportunities for Family Medicine Residents

Sudha Koppula*, MD, MCIsc, CCFP, FCFP; Oksana Babenko, PhD; Shannon Gentilini, BEd MEd; Nathan Turner, MD, CCFP; Olga Szafran, MHSA

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Describe resident teaching experiences as identified by family medicine residents
2. Review the CFPC Fundamental Teaching Activities (FTA) Framework as a structure to organize teaching activities
3. Map the identified teaching opportunities to the FTA Framework

Description:

Context: Family Medicine (FM) education is vital during training, including FM residency. Canadian FM residency programs need to provide teaching opportunities to trainees to enable skill development. In response to this accreditation requirement and the need for skilled FM teachers, residency programs have introduced formal resident teaching opportunities into curricula; however, informal teaching opportunities may also be available to FM residents. These may not be readily recognized. **Objective:** 1. to identify and describe teaching opportunities and experiences that FM residents have within FM residency; and 2. to map these teaching opportunities and

experiences onto the CFPC Fundamental Teaching Activities (FTA) Framework. **Design:** This qualitative study employed semi-structured, one-on-one virtual interviews (ZOOM) with family medicine residents, teachers and educational leaders. Two interview guides were developed: one for family medicine residents and another for teachers and educational leaders. The guides provided questions and probes to encourage discussion. To ensure comparability between interviews, the same set of questions were asked of each participant. Ethics approval was obtained. **Setting:** Department of Family Medicine, University of Alberta. **Participants:** Family medicine residents and teachers/leaders within the Department of Family Medicine Residency Program. **Main Outcome Measures:** Participants identified teaching opportunities that residents have during the FM residency program. Data was digitally recorded and transcribed. Qualitative findings were analyzed using thematic analysis to code the interview information individually by each investigator and then collectively. **Results:** Preliminary analysis revealed varied formal and informal resident teaching opportunities and experiences within and outside clinical settings. Emergent themes include FM residents' motivations to teach, benefits and challenges of teaching, strategies for engagement during teaching, impact of COVID-19, and recommendations on how to strengthen teaching experiences in FM residency. **Conclusions:** Resident teaching opportunities and experiences are amenable to mapping to the domains of the CFPC Fundamental Teaching Activities (FTA) Framework.

Abstract ID: 324

Telemedicine for Older Adults: Multi-phase study results

Vladimir Khanassov, MD, MSc, CCFP; Marwa Ilali*, MD; Ana Gabriela Saavedra Ruiz, MD, MSc; Laura Rojas-Rozo, MD, MSc; Isabelle Vedel, MD

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Describe older adults' experience with telemedicine use during the pandemic
2. Identify potential barriers and facilitators of telemedicine use
3. List potential telemedicine use recommendations

Description:

Objective: To explore older adults' and family physicians' experience with telemedicine (TM) use during the COVID-19 pandemic, and to identify potential facilitators and barriers of TM use.

Design: Multi-phase design. Phase 1: Systematic review; Phase 2: Qualitative descriptive study; Phase 3: Deliberative dialogue. **Setting:** Montreal, Quebec. **Participants:** Twenty-nine older adults (65 years and older) and eight family physicians. **Data Collection:** Between October and December 2021, we conducted individual semi-structured interviews with the older adults from four McGill family medicine sites – Herzl clinic of the Jewish General hospital, CLSC-CDN, CLSC Parc-Extension and CLSC-Metro. Preliminary interviews findings informed focus groups with family physicians held in February and March 2022. **Analysis:** Individual semi-structured interviews and focus groups findings were analyzed using inductive thematic analysis, based on the Consolidated Framework for Implementation Research (CFIR). **Findings:** We are reporting the preliminary findings from the qualitative descriptive study (phase 2). Participants reported that telemedicine contributed to maintain continuity of care, and convenient to resolve minor health issues, triage/preliminary consultations, and to follow-up with their family physicians. TM was also

considered particularly beneficial for persons with limited mobility; and reduced the exposure of older adults to potential high-risk environments. Nevertheless, participants expressed some concerns about the lack of visual contact, negatively impacting the physician-patient relationship and causing important details to be overlooked. Similarly, miscommunication difficulties may emerge due to language or hearing barriers. Furthermore, family physicians perceived that most patients did not consider phone consultations as a medical act. However, older adults and family physicians were amenable to a hybrid approach, combining in-person consultations and telemedicine, depending on the health conditions. **Conclusion:** Older adults consider telemedicine to be a good alternative for accessing health-care services, when provided in a hybrid approach combined with in-person consultations with their family physician.

Abstract ID: 163

The Canadian MAiD Curriculum Development Project: Work-in-progress

Stefanie Green*, MD CM, CCFP; Gord Gubitz, MD, FRCPC; Madeline Li, MD, PhD; Sarah Stevens, BScN, RN, MN; Seline Thevasahayam, BA

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Understand how a comprehensive Canadian MAiD teaching curriculum could improve patient care
2. Appreciate that teaching MAiD care skills involves multiple intertwined components
3. Emphasize that MAiD care can be provided by any interested Family Physician

Description:

Context: Medical Assistance in Dying (MAiD) has been legal for eligible Canadians since 2016. Teaching clinicians how to perform MAiD assessments and provisions is not standardized in Canada. Standardized MAiD-related education is a recognized need, especially for Family Physicians, who have a significant role to play as MAiD becomes more widely accepted in Canada. **Objective:** To develop a high-quality, nationally standardized MAiD teaching curriculum that will improve the skills and confidence of clinicians who wish to become involved in MAiD care. **Design:** The Canadian MAiD Curriculum Development Project is overseen by a Core Committee comprised of MAiD content experts. This Committee reports to the Canadian Association of MAiD Assessors and Providers (CAMAP) and a National Steering Committee comprised of stakeholders to ensure equity and diversity. Each Core member chairs a diverse Working Group tasked with developing an educational module for one of eight topics: Foundations, Initial Clinical Conversations, Assessments, Provisions, Capacity and Vulnerability, Complex Scenarios, Mental Health, and Clinician Resilience. **Main Outcome Measures:** The curriculum will include synchronous and asynchronous on-line learning formats, be available in French and English, and be delivered through in-person 'teach the teacher' workshops. A rigorous implementation and REB-approved research-focused evaluation process involving end-user groups (experienced MAiD providers, novice MAiD providers, persons with lived experience) is being developed. This will include a 'soft launch' of the modules with a continuous quality improvement feedback cycle that will inform the development of the final curriculum. **Results:** Work in Progress - the project will result in a comprehensive Canadian MAiD teaching curriculum. **Conclusion:** The final curriculum will be approved by our national medical (CCFP, RCPSC) and nursing (CNA)

colleges, and promoted and sustained by CAMAP in collaboration with the members of our National Steering Committee.

Abstract ID: 279

The Exceptional Learner in Medical Education

Gurpreet Mand, MBBS, CCFP, FCFP, MSsCH; Monica Nijhawan*, MD, CCFP, MSsCH, FCFP; Risa Freeman, MD, CCFP, MEd, FCFP; Allyson Merbaum, MD, CCFP, FCFP

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Identify the characteristics of high performing learners
2. Describe the "Being/Doing" framework
3. Illustrate how the "Being/Doing" framework can be applied in medical education

Description:

Objective: The objective of this study is to gain a clearer understanding of how to identify exceptional learners and understand teachers' perspective. This understanding will help facilitate the optimization of the learning environment to enrich the experience for both students and faculty, and support them to become high-performing and strong contributors to the healthcare system. **Design:** A qualitative study was undertaken at the Department of Family and Community Medicine at the University of Toronto with faculty members participating in semi-structured interviews. Transcripts were analyzed and coded using content analysis and constant comparative methodology. **Participants:** Faculty members from the Department of Family and Community Medicine at the University of Toronto were recruited to participate in this study. Participants were purposefully recruited from local sites through invitation by their Postgraduate Site Director. Fifteen faculty members from across 14 academic sites participated in the semi-structured interviews. **Findings:** A framework was developed to categorize characteristics of exceptional learners by differentiating them as either "Being" (a pre-existing attribute or set of values that the learner possesses from the start of training) or "Doing" (demonstrable characteristics that can be observed or measured). In our study, five characteristics fit in the category of "Being", five in the category of "Doing", and two fit as either or both. **Conclusion:** Faculty described a range of characteristics that can be used to identify exceptional learners. While these qualities may be seen or even expected in many medical learners, exceptional learners are described as having high degrees of these individual qualities or a combination. Next steps include gaining an understanding of teachers' experiences with these trainees and considering their role as future leaders of our healthcare system.

Abstract ID: 420

The Partnership Between the College of Family Physicians of Canada and NAPCRG (North American Primary Care Research Network)

VR Ramsden*; Steve Slade; Diedre Snelgrove; Elena Diaz and the Section of Researchers Council, College of Family Physicians of Canada

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Describe two contributions made by Canada to NAPCRG
2. List two successes of the partnership
3. Reflect on how patient-partners can be integrated into the Section of Researchers

Description:

Purpose: To celebrate and reflect upon the research partnership between the College of Family Physicians of Canada and NAPCRG. **Methodology:** Taking the lead from experiences with participatory approaches, we utilized a variety of methods including descriptive statistics, narrative inquiry and story telling. **Findings/Discussion:** When a review of the NAPCRG database earlier this year was undertaken, there were 928 NAPCRG members and of these 25% (231/928) were Canadians. Although this organization was created by physicians, Canada was the original partner to bring interdisciplinary family medicine/primary care researchers (Epidemiologists, Nurses, Social Workers, etc.) to NAPCRG. Currently, physician researchers make up 30% (69/231) of the Canadian membership while interdisciplinary family medicine/primary care researchers make up 26% (60/231), Fellows, Residents and Students make up 34% (78/231) and Patient-Partners/Community members make up 10% (24/231). In addition, Canadian family medicine/primary care researchers have contributed greatly to the leadership of NAPCRG over these 50 years. Forty-one percent (9/22) of NAPCRG Presidents have originated from Canada. The following individuals were NAPCRG Presidents; thus, it is important to recognize them for their contributions to NAPCRG: Carol Herbert (1987-89); Walter Rosser (1991-93); Ann C Macaulay (1999-2001); Moira Stewart (2003-05); Jeannie Haggerty (2009-11); Rick Glazier (2013-15); Bill Hogg (2016-17); Judith Belle Brown (2018-19); and Gillian Barlett-Esquilant (2020-21). It is interesting to note, that 56% (5/9) were physicians and 44% (4/9) were non-physician researchers. This is quite different from the American profile which has not had a non-physician researcher hold the office of President. **Conclusions:** We learn and have learned from each other and as a result family medicine/primary care research has been enhanced by being a part of this international partnership.

Abstract ID: 379

The Prevalence of Pregnancy-Specific Perinatal Anxiety in Nova Scotia

Courtney Langille*, BSc; Helena Piccinini-Vallis, MD, PhD, CCFP, FCFP; Pantelis Andreou, PhD

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Describe pregnancy-specific perinatal anxiety
2. Identify some of the correlates of pregnancy-specific perinatal anxiety
3. Consider the presence of pregnancy-specific perinatal anxiety in one's own practice

Description:

Objective: Pregnancy-Specific Perinatal Anxiety (PSPA) is an understudied mental health condition of pregnancy that may affect maternal-fetal health outcomes. The purpose of this study was to explore the prevalence of PSPA among pregnant women in an eastern Canadian province, as well as the factors associated with it. **Design:** This was a cross-sectional study. Approval from the local

Research Ethics Board was obtained. **Setting:** This study took place in a prenatal clinic at the IWK Health Centre in Halifax, Nova Scotia. **Participants:** A sample of 90 pregnant women receiving prenatal care provided data on PSPA symptomology and demographic co-variables via a self-report online survey. **Main Outcome Measure:** The main outcome measure was the presence (or absence) of PSPA. **Results:** The prevalence of PSPA in the sample was 17.8%. Smoking during pregnancy and a pre-pregnancy diagnosis of anxiety were significantly associated with meeting the criteria for PSPA ($p = 0.008$ and $p = 0.013$, respectively) and strongly predicted the presence of PSPA (odds ratio 8.54 and 3.44, respectively). **Conclusion:** A significant proportion of participants in the sample experienced symptoms consistent with a diagnosis of PSPA. This underscores the importance of further research on PSPA as a unique phenomenon in pregnant women, and the impact it may have on fetal and maternal health outcomes. A greater clinical emphasis should be placed on screening for and treating mental health conditions of pregnancy, including PSPA.

Abstract ID: 371

USask Chronic Pain Clinic (CPC) Phase I Evaluation

Katelyn Halpape*, BSP, ACPR, PharmD, BCPP; Radhika Marwah, MD, MSc-AMH (Addictions), CCFP; Derek Jorgenson, BSP, PharmD, FCSHP

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Describe the USask CPC's unique model of chronic pain care
2. Summarize the results of the USask CPC's phase I evaluation
3. Discuss how the USask CPC's model could be applied in other jurisdictions

Description:

Description: One in five Canadians experience chronic pain, access to interprofessional chronic pain management programs is limited especially in rural and remote regions. The University of Saskatchewan (USask) Chronic Pain Clinic (CPC) was established in 2020 to fill this gap. The USask CPC is a non-prescribing program that includes 4 pharmacists, 3 social workers, 2 physical therapists, and 1 part-time chronic pain physician. Services are delivered virtually or in-person.

Purpose: To evaluate the effectiveness of the USask Chronic Pain Clinic. **Method:** A retrospective chart audit of the first 103 patients who were referred to the program was completed in 2021. A postal survey was also mailed to patients and their referring healthcare professionals 3 months after the patient was referred to the program. **Result:** The mean age of patients in the audit was 57 years (range 22-87) and 72.8% ($n=75/103$) were using an opioid at intake, with a mean morphine equivalent (MME) dose of 233mg/day. Five of the 75 patients (6.7%) taking an opioid at intake were switched to buprenorphine/naloxone and those who remained on an opioid had their MME reduced by a mean of 14.2% (from 233mg/day to 200mg/day). Clinical Global Impression-Severity (CGI-S) scale scores improved from 4.1 (moderately ill) to 3.4 (mildly ill). Naloxone kits were provided to 11 patients. Patient survey response rate was 33.3% ($n=26/78$) and almost all (96.2%, $n=75/78$) reported to be 'very satisfied or satisfied' with their experience and 61.5% ($n=48/78$) reported that their overall health status was 'much improved or improved'. Health professional survey response rate was 33.8% ($n=21/62$) and 100% responded that they would 'recommend the clinic to their colleagues' and that the 'consultations were helpful'. In addition, 52.4% felt more

confident in prescribing opioids after having their patient come to the clinic and 71.4% were more confident in managing chronic pain.

Abstract ID: 322

Virtual Primary Care for People Living With Dementia

Vladimir Khanassov, MD, MSc, CCFP; Deniz Cetin-Sahin*, MD; Sid Feldman, MD, CCFP; Saskia Sivananthan, PhD; Isabelle Vedel MD, PhD

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Describe prevalence of virtual care use among people with dementia, their caregivers and family physicians
2. Determine factors associated with virtual care use
3. Describe FPs' perceptions of barriers and facilitators to virtual care provision

Description:

Objectives: To describe prevalence of virtual care (VC) use among people living with dementia (PLWD), their caregivers, and family physicians (FPs); to determine factors associated with VC use, and explore FPs' perceptions of barriers and facilitators to VC provision. **Design:** Concurrent mixed-methods design. **Setting:** Canada. **Participants:** PLWD, their caregivers, FPs. **Survey Methods:** Alzheimer Society of Canada and College of Family Physicians of Canada conducted three cross-sectional surveys with PLWD, their caregivers, and FPs across Canada in a period following the onset of the COVID-19 pandemic (between October 2020 and March 2021). We conducted a post-hoc analysis of selected questions pertinent to VC. **Analyses:** Prevalence of VC (two-way synchronous communication using a phone and/or a web camera) provision by FPs and its uptake by PLWD and caregivers were described. Logistic regression models were used to determine factors (sociodemographic, urbanicity, frequency of and support for connecting FPs, and FPs' practice characteristics) associated with VC use. Thematic analysis of open-ended questions explored FPs' perceptions of barriers and facilitators. **Results:** 131 PLWD, 341 caregivers, and 125 FPs participated. Virtual care users were 61.2% of PLWD, 59.5% of caregivers, and 77.4% of FPs. The models for PLWD (included age and ethnicity) and caregivers (included gender, rurality, and receiving support to connect FP from a family member/friend) were inconclusive. Among FPs, having more than 20 years of practice was significantly associated with a decreased likelihood of providing VC when attachment to a community-based team was held constant (OR=0.23, 95%CI:0.08-0.62, $p<0.01$). Care preferences (decision stage), office/family support (preparation stage), technology and family presence (execution stage), and remuneration for FPs (compensation stage) were the most recurring themes. **Conclusion:** Virtual primary dementia care uptake is substantial and performed mostly by phone. Optimal VC provision requires patient-caregiver-physician shared decision-making, interoperability in healthcare, supporting triads before and during execution, and appropriate compensation.

Abstract ID: 300

What Students Think About Fairness in Family Medicine Residency Selection

Keith Wycliffe-Jones*, MBChB, FRCGP, CCFP; Rohini Pasricha; Michelle Mayne, MEd; Dewdunee Himasara Marasinghe, MScPH; Michelle Morros, MD, CCFP; Alain Papineau, MD, CMFC, FCMF; Karlyne Dufour, MD, CCFP, FCFP; Sarah Kinzie, MD, CCFP, FCFP; Mark Mackenzie, MD, CCFP (EM)

Learning objectives:

At the conclusion of this activity, participants will be able to:

1. Understand applicants' perceptions of fairness in Family Medicine(FM) Residency selection in Canada
2. Know the differences in the perceived fairness of different selection assessment approaches
3. Know the importance of perceived job-relatedness of an assessment to fairness in selection

Description:

Context: Very little is known about Canadian Medical Graduates'(CMGs) perceptions of fairness in Family Medicine(FM) residency selection. **Objective:** To explore applicants' perceptions of fairness in FM residency selection. **Design:** An anonymous survey was developed utilizing questions based on an organisational justice framework exploring perceptions of both procedural and distributive fairness. **Setting:** The online survey invitation was distributed to all Canadian medical schools.

Participants: In 2019, the survey was distributed to PGY1 FM residents(2019 cohort) and in 2020, to final-year medical students who applied to FM Programs in the 1st round of the CaRMS match(2020 cohort). **Main Outcome Measures:** Analyses were conducted to study perceptions of overall fairness and transparency in selection across programs, and of fairness, job-relatedness, and predictive validity for Multiple Mini-Interviews(MMIs), Traditional Interviews(TIs) and Situational Judgement Tests(SJTs). **Results:** 160 Residents in 14/17 Programs in 2019 and 173 students in 12/17 schools in 2020 completed the survey.(10% & 14% response rates). Only 20% (2019) and 34%(2020) indicated the SJT they completed, in all or most programs, related to the role of a Family Physician(FP). In contrast, 88%(2019 & 2020) indicated a TI and 76%(2019) and 81%(2020) found the MMI content in all or most programs related to the FP role. Significantly, only 23%(2019) and 41%(2020) felt the SJT was a fair selection tool compared with 73%(2019) and 80%(2020) for TIs and 65%(2019) and 76%(2020) for MMIs, in all or most programs. Overall, 75% (2019) and 77% (2020) of respondents felt the selection process for FM was fair in all, or most, programs. **Conclusions:** The majority of participating final-year CMGs and PGY1 FM Residents found selection for FM Residency to be fair. Most found traditional interviews and MMIs to be fair and job-related. This was not the case for the SJT completed by many of the respondents.

The Besroul Centre for Global Family Medicine

Dr. Patrick Chege Memorial Research Award Poster Presentations

Case Report: Acute fatty liver of pregnancy: The need for early detection and multidisciplinary care

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Affiliations: ¹Addis Ababa University College of Health Sciences Dept. of Family Medicine

Background: Acute Fatty Liver of Pregnancy (AFLP) is a rare, (1/7000-1/20000) catastrophic disease affecting women in late third trimester of pregnancy or in the post-partum period, with high maternal and fetal mortality. Such patients need urgent stabilization and management by a multidisciplinary team to prevent fatal complications and death. In Ethiopia, there is a shortage of specialists requiring family physicians to fill the workforce gaps in secondary and tertiary health facilities. Family physicians will need to have a high index of suspicion to make prompt diagnosis and coordinated team effort aimed at preventing maternal and fetal mortality from AFLP. **Case Presentation:** A 30-year-old, Para IV (with a dead fetus expelled on the way to Addis Ababa) was referred with a diagnosis of HELLP Syndrome. Based on her clinical presentation (of nausea, vomiting, gum bleeding jaundice, and upper GI bleeding) and laboratory findings (including a WBC 20.4x10³/ml, Bil T 26.1mg/dl, Bil D 8.7mg/dl, Platelet 52,000/L, ALT 478mg/dl, and AST 570mg/dl) she was diagnosed with acute fatty liver of pregnancy and admitted at ALEART, the referral hospital. The management plan included 40% dextrose 6hrly, ceftriaxone 1gm iv BID, and Metronidazole 500mg iv TID. She was also given lactulose enema 10gm/15ml in 700ml, dexamethasone 10mg iv stat, followed by 4mg Q 6 hourly. Due to the gum bleeding and bloody urine in the bag; the feared and expected complication (DIC) was suspected and she was transfused with 2 units of whole blood, 2 FFP, 8 units of platelets and transferred to medical ICU. Her condition worsened very fast; with a GCS that declined from 13/15 to 10/15 and creatinine levels that increased from 1.3mg/dl to 7.4mg/dl. She was eventually transferred to Saint Poulos Hospital for dialysis but died on the seventh day of hospitalization. **Conclusion:** Delay in early detection and efficient management results in increasing fetal and maternal mortality. Good communication, improved referral system, multidisciplinary team approach and readiness in the general, referral and teaching hospitals can help in preventing such premature deaths.

Application and Disposal of Face Masks and Proper Hand Washing in Hospital Pre-Triage Areas

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Background: Corona virus disease 2019 (COVID-19), is an infectious respiratory disease caused by severe acute respiratory syndrome corona virus 2 (SARS-CoV-2). It is a serious global health problem costing the lives of many people. While all health care workers are at higher risk of contracting the virus, non-clinical health care staff face an even bigger risk due to their lack of clinical background. Pre-triage area staff are among those non-clinical health care staff who had no medical training and were assembled from different departments when the pandemic struck making them and their families more susceptible to contracting COVID-19. **Statement of The Problem:** Staff members working in the pre-triage area at the “Fever and Cough” clinic in Black

Lion Specialized hospital have inadequate knowledge on the proper application, use, and disposal of personal protective equipment in addition to proper technique of hand washing leading to increased risk of contracting the virus. **Objective:** To reduce the risk of Covid 19 virus transmission to pre triage area staff by improving the knowledge through training session on the proper techniques of hand washing and face mask utilization between July 1st – July 31st 2020. **Method:** Pre/post descriptive study of observed hand washing and mask donning. The staff was initially observed while hand washing and mask donning and given a score according to steps followed in the WHO hand washing and mask donning procedure. After a month-long training on the topic they were observed again and given scores accordingly. **Results:** Pre-intervention data- Pre triage staff collectively scored a collective average of 51.2% in the proper hand washing process. They scored an average of 30% in the proper application, use and disposal of face masks. Post intervention data- After training on proper hand washing techniques and proper use of face mask the staff was able to score an average of 81.2% and 72.5% respectively. **Conclusion:** Providing pre triage area staff with adequate training on precautionary measures can have positive impacts resulting in improved infection prevention.

Awareness, Availability and Use of Teaching Aids in Family Medicine Training Centres in West Africa

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Abstract: Introduction: Afriwon research group is concerned with improving education and research in Family Medicine in Africa. This is with a view to expanding the discipline and improving the capabilities of Family Physicians in the region. Considering the need for increased awareness and use of teaching aids and skills acquisition tools in Family Medicine postgraduate training and the fact that though some training centres in West Africa have made concerted efforts to ensure their use, many still have a lot to improve on, we, the members of Afriwon Research Group sought to objectively determine its level of awareness, availability, and use in the sub-region. **Methods:** This was a descriptive cross-sectional study involving all consenting Heads of Department and Training Coordinators of all centres with current Family Medicine accreditation in West Africa. The Google link to a questionnaire comprising socio-demographic variables, questions on awareness, availability and use of various teaching aids and skill acquisition tools was sent to the respondents via WhatsApp message. Continuous variables were expressed as mean \pm standard deviation and categorical variables as frequencies and percentages. Chi-square test and logistic regression analysis were used to determine factors associated with and predictors of availability and use of teaching aids/skills acquisition tools. **Results:** The response rate was 107(84.3%) from all currently accredited West Africa FM training centres. Their mean age was

54±7 years; they were predominantly 93(86.9%) certified as trainers. All the respondents felt the use of teaching aids/skills acquisition materials would enhance learning in their departments. However, most were aware and used traditional resources (97.2%) and non-electronic (96.3%) resources. Only 10 (9.3%) respondents had mannequins for training resident doctors. **Conclusion:** Most Family Medicine trainers in West Africa are aware and support the use of teaching aids/skills acquisition materials. However, the availability and uptake is currently very low. There is an urgent need for the postgraduate colleges and all stakeholders to look into ways of improving the use of teaching aids/skills acquisition materials in the sub-region.

Danger Signs of Pregnancy as an ‘Obstetric Triage System’ in ANC at Alert General Hospital

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Acknowledgements: Praseedha Janakiram²; Sheila Dunn²; Jamie Rodas²; Leila Makhani²; Abbas Ghavam Rassoul²

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Background: Pregnant mothers require proper attention and care at health facilities. Danger signs of pregnancy are an alarm for both the mother and her fetus. In a crowded ANC (Antenatal Care) clinic environment, where there is unmatched balance between care seeking pregnant mothers and care providers, mothers may lack a chance of reporting their danger signs as early as possible to their primary physician and may get complicated further while waiting for their order of arrival at causality. A delay in Obstetrics refers to the time taken for more than one hour to decide to seek care, or more than one hour to get to a health facility after making the decision, or the wait for more than one hour in the health facility to receive delivery care-Institutional delay. **Statement of The Problem:** While observing the ANC clinic at Alert General Hospital, one of General hospitals found in Addis Ababa city, Ethiopia, it was seen to be overcrowded with many pregnant mothers waiting to be seen in ANC, but with limited human power resource. **Objective:** The number of pregnant mothers who come with danger signs of pregnancy to ANC clinic & seen after institutional delay will decrease by 70% over one month period during December 1st -30th, 2021. **Method:** Plan, Do, Study, Act (PDSA) method is used with a printed checklist of ‘Danger signs of Pregnancy’ filled at the triage. **Results:** The number of mothers seen after institutional delay has decreased from 10.4% pre intervention to 2.5% post intervention. The goal of decreasing by 70% i.e. decreasing the 10.4% pre intervention institutional delay to 2.99% was achieved, likely due to the easiness of the project for use. **Conclusion:** The implementation of ‘Danger signs of pregnancy checklist’ as an ‘Obstetric Triaging System’ can help decrease institutional delay for mothers with danger signs at ANC which in turn will decrease or prevent the fetomaternal complication that could contribute to maternal and fetal mortality.

Description of the Challenges in Care of the Elderly from a Bioethical Perspective in Cuba

Mercy Wanjala^{1*}, senior registrar family medicine

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Background: Aging brings with it a decrease in physical abilities, cognitive impairment and the loss of social roles and economic capacity, increasing the vulnerability and dependence of the elderly on their family or community institutions. These growing functional limitations of the elderly require a supportive attitude and care by people, known as caregivers who, in general, at the family level are mature adults who assume the greatest weight of their care and medical professionals. Communication and interrelation between older adults, their families, and caregivers reflect dynamics that affect the quality of care provided to them and could cause negligence and iatrogenic harm. On the other hand, the prolonged care of older adults negatively affects caregivers resulting in burnout and affecting quality of life. **Purpose:** To describe the challenges present in the relationships of the elderly who require permanent care and, their caregivers, in the context of their family and community from a bioethical perspective. **Methods:** Qualitative Study: interviews were conducted with the elderly and their caregivers and a focus group with health personnel responsible for the care of this population in the "Ana Betancourt" University Polyclinic in Havana, Cuba. Twenty elderly, twenty-four caregivers, and fourteen health professionals who met the inclusion criteria participated. The content of the interviews was analysed by the discursive analysis technique. **Findings:** There was poor participation of the elderly in decisions related to their own health; prioritization of the opinions of their caregivers; limited access to information about their health; limited freedom to engage in activities independent of daily life and self-care; psychological dependence on caregivers; discrepancies regarding multiculturalism and moral pluralism. **Conclusion:** Paternalistic and medical-hegemonic behaviours persist in health care. In this case, the elderly who although vulnerable, are morally autonomous and need to be supported to make decisions regarding their care as moral agents.

Educational Intervention Strategy for The Care of The Elderly from A Bioethical Perspective in Cuba

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Background: The aging of the global population has led to the emergence of new health policies, new medical services, and appropriate therapeutic approaches to address the special needs of this population. This also demands a social response that intelligently combines economic rationality and humanism. Of special importance are the studies that allow for the identification of those elements necessary for the community and the family itself to adopt a strategy aimed at improving elderly care and thus the dignity, integrity, and quality of life of all the people involved. **Purpose:** To design an educational intervention strategy to improve the care of the elderly in the context of their community and family from a bioethical perspective. **Methods:** Qualitative Study: Interviews were conducted with the elderly and their caregivers and a focus group with health personnel at the "Ana Betancourt" University Polyclinic in Havana, Cuba. Based on the findings, a problem tree and SWOT analysis were employed to identify key areas to target with an educational intervention strategy. Educational intervention been successfully used in Cuba to improve family, community,

and population health through behavioural and attitude change. **Findings:** The root of the problem was the limitation of the personal autonomy of the elderly under care, where a majority deferred all decisions to their caregivers. The educational intervention targets: empowerment program for the elderly and caregivers, Gerontological committee to oversee care of the elderly in the community, and training of healthcare personnel. The methods in the strategy include a caregiver school, clinical ethics course for the primary health care staff, groups dynamics training and psychotherapeutic sessions for empowerment of the elderly. **Conclusion:** The educational intervention strategy was designed with interventions aimed at improving collaboration of the actors involved in elderly care to foster dialogue and mutual recognition of older adults as moral agents.

Emergency Care Quality: Is there a difference with age?

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Context: The age of patients inevitably influences clinical reasoning in the emergency department. Particular attention should be paid to the quality of care provided to vulnerable elderly patients presenting to the emergency department. Our objective is to assess the level of care provided to the elderly in comparison to younger patients. **Methods:** We conducted a retrospective cohort study that included 18-year-old patients hospitalized in the ED. We excluded all those whose files were incomplete. We compared the clinical profile of patients and the nature of the care resources they mobilized. We collected data during a period of 6 months (from August 2019 to January 2020). The comparison between the two groups was analyzed using the Chi-square test. **Results:** Our population consisted of 111 subjects (65.3%) aged <65 years and 59 subjects (34.7%). There was no gender difference in the elderly group. More than one reason for consultation was found in both groups. Impairment of consciousness and hemiplegia were significantly associated with older subjects ($p=0.024$ and $p=0.03$). There was a higher history of hypertension in the elderly ($p=0.03$), unlike diabetes, which had the same prevalence in both groups ($p=0.5$). The average wait time for admission for older subjects was 5 hours 13 minutes versus 5 hours 20 minutes for younger subjects ($p=0.5$). Acute coronary syndrome (36.4%), sepsis (16.9%) and shock (11%) were the three diagnoses associated with older subjects ($p=0.03$, $p=0.001$, $p=0.005$). An invasive procedure was prescribed in 21.2% of older subjects compared to 18.9% of younger subjects ($p=0.32$). Antihypertensives, corticosteroids, and mimetic beta-2 were the most prescribed therapies in older subjects ($p=0.024$, $p=0.036$, and $p=0.05$). The median length of hospitalization was the same ($p=0.7$). Finally 84.7% of older subjects and 75.7% of younger were sent home from the emergency department ($p=0.7$). **Conclusion:** Elderly patients waited for admission in Emergency Department as long as younger patients. The creation of a geriatric unit within emergency departments is essential in order to adapt the quality of care for this vulnerable population.

Enhanced Skills in Care of Underserved Populations: A program evaluation (Work in-progress)

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Context: In July of 2017 Memorial University of Newfoundland launched an enhanced skills program in Care of Underserved Populations (CUP) for family medicine graduates/practitioners. This 12-month program takes an inclusive approach to health equity and social accountability by including core rotations in Inner City Health, Indigenous Health, and International Health. The Program was thus designed with a focus on sustainability and capacity building by engaging residents, transdisciplinary partners, and community in education and scholarship, as well as clinical service. **Objective:** To evaluate whether the CUP program has been implemented as planned and is successfully meeting the intended outcomes. **Design:** A logic model has been designed to guide the evaluation. Mixed methods with qualitative and quantitative components, including online surveys (administered using Qualtrics) and semi-structured interviews of participants (above), as well as document review (e.g., logs of cases seen; academic work submitted by residents in the program; etc.). **Participants:** Graduates from the Program; faculty who work in or are familiar with the Program; administrative staff who support the Program; and community partners involved in the Program. **Outcome Measures:** Indicators mapped to the logic model and evaluation questions, including themes from qualitative data sources (i.e., interview transcripts and survey comments) and trends noted in quantitative data sources (i.e., survey questions and administrative documents) to determine whether short-term and long-term outcomes are being achieved. Short-term outcomes include: increased resident competency in social and clinical medicine; improved quality of care for underserved populations; increased capacity for medical education and continuing professional development; increased advocacy for policy changes that benefit underserved populations. Long-term outcomes include: increased number of family doctors including Care of Underserved Populations in their practice; more equitable healthcare system; diverse partnerships for broad-scope advocacy. **Result:** preliminary results from select data sources (e.g., residents/graduates from the program) are expected by time of presentation. **Conclusions:** Anecdotal feedback suggests the CUP Program is an innovative training program which equips family medicine graduates for a socially accountable practice and offers a great opportunity for short- and long-term mentorship in this field of work. Evidence for this awaits the results of this program evaluation.

Evaluating Screening and Intervention for Poverty in Family Practice Settings in Saskatchewan During COVID-19

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Context: Poverty is a major driver of health outcomes. The Clinical Poverty Screening Tool has been recommended to screen all patients for poverty, and to be used to assist patients in accessing resources and benefits. Pandemics such as COVID-19 can emphasize social and health inequalities, placing economical strains on a large portion of the population. With this in mind, screening for poverty during the pandemic may be more relevant and helpful for patients.

Objective: Determine the practices, barriers, comfort-levels and knowledge of poverty screening and intervention amongst family physicians (FPs), family medicine residents (FMRs) and family nurse practitioners (NPs) in Saskatchewan during the COVID-19 pandemic. **Design:** A cross-sectional survey on SurveyMonkey was developed and distributed by email and newsletters to FPs, FMRs and NPs in Saskatchewan from January-March 2022. The project was reviewed and approved by the University of Saskatchewan's Behavioural Research Ethics Board. IBM SPSS

version 28 was used to perform descriptive statistics and intergroup comparisons using Kruskal-Wallis test, Likelihood ratio and Pearson Chi-squared tests. **Results:** Eighty-three FPs, 35 FMRs and 25 NPs participated in the survey. Participants generally agreed that time, patient factors, practitioner knowledge and availability of community resources and services were barriers to screening. Comfort discussing government benefits with patients was generally low, with slight differences amongst provider groups ($p=.042$). Thirty-one (40.3%) of FPs, 7 (20.6%) of FMRs and 17 (68.0%) of NPs had referred a patient to a government benefit. However, this was rare as NPs 'rarely' and physicians 'very rarely' referred patient to tax clinics and income support ($p=0.001$). Only eight (6%) of participant had used the Poverty Screening Tool. **Discussion:** The results are consistent with similar studies that primary health providers face many barriers in screening for poverty, including time constraints and lack of training. This demonstrates a need for further research and training to integrate poverty screening and intervention in primary care. **Conclusions:** FPs, FMRs and NPs in Saskatchewan do not routinely screen for poverty, despite the impact of the COVID-19 pandemic, due to several barriers including time, comfort, and knowledge surrounding access to government benefits and resources.

Family Medicine Program in Urban Areas of Iran, Strategic Analysis

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Background and Aim: The family medicine program in urban areas in Iran has been implemented on a trial basis in two provinces for 10 years ago. This program is now facing challenges. The aim of this study was to analyze this program in Iran. **Materials and Methods:** This qualitative study was conducted using semi-structured interviews with 86 program stakeholders including managers and experts of the health system, family physicians, community health workers and patients in Iran in 2022. The purposeful sampling method was used to select the samples. Thematic analysis was used for data analysis. **Results:** Weaknesses, strengths, opportunities and threats of Iran's urban family medicine program, as well as strategies to strengthen it were identified in 6 categories, including Governance, Financing, Service delivery, Human resources, Information system and Facilities and equipment. The urban family medicine program in Iran has achievements such as reducing out-of-pocket, strengthening physician-patient relationship and reducing unnecessary referrals to specialized levels. This program has weaknesses such as haste in the implementation, insufficient participation of stakeholders and inefficiency of the referral system. The program also faces threats such as weak inter-sectoral partnerships, low public trust in GPs, short-term attitudes of managers and induced demand. To deal with these challenges, solutions such as strengthening the governance role of the Ministry of Health, participation and interaction between stakeholders, strengthening the educational system using long-term, medium-term and short-term education methods, developing the human resources competency model, integrating the health information system and the development of universal health insurance was proposed. **Conclusion:** The main weaknesses of Iran's urban family medicine program are in areas such as unstable financing, the lack of commitment of health system managers, and the ambiguity in manpower training, which must be resolved before expanding the urban family medicine program to the entire country. However, the effective structure of the primary health care network system and the emphasis of

the upstream documents on the implementation of the program can be opportunities for the success of the program.

Family Medicine Program in Ethiopia: Overview, scholarly activities and the way forward

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Introduction: Ethiopia with a population of over 115 million, health service is structured into three levels of care, primary, secondary and tertiary. The primary healthcare unit is expanding significantly. Despite the overall progress in health services delivery, Ethiopia still falls short of Universal Health Coverage (UHC) and the national average physician-to-population ratio is 1: 17,000, which is below the WHO minimum target of 1: 10,000 for developing countries. In 2019 the UHC index was still very low at 39%. Morbidity and Mortality from communicable diseases have declined. However, mortality due to non-communicable disease has increased by 38% between 2000 and 2016. The introduction of family medicine is a strategy to improve these adverse health outcomes and manage health care costs. The family medicine program was first launched on February 4, 2013, at the Addis Ababa University, College of Health Sciences with support from Toronto University. The current training consolidates clinical skills to improve the comprehensiveness and quality of care and enables Family physicians to function as scholars and health system leaders. **Methods:** Descriptive study design, secondary data from a review of the background and the curriculum, reports from scholarly activities from the department. **Outcome:** A total of 25 residents are currently enrolled in the family medicine residency program. Since 2016 a total of 40 Family physicians have graduated and are playing their role in the Ethiopian healthcare delivery system mainly in the primary healthcare settings a quarter remain as faculty. Quality improvement and mentored research projects mainly done in primary care settings are mandatory skills to finish the residency program. Another residency program started St. Paul's Hospital and working collaboratively, Future directions focus on expanding the residency program. **Lesson learned and the way forward:** In Ethiopia, the current supply of trained health workers is insufficient to address the health care needs. The Federal MOH has worked to build a strong primary care system over the past 2 decades, therefore the introduction of family medicine as a strategy will provide the country with a new cadre of highly trained comprehensive care physicians especially contributing to this level of the health system.

How Well Does SARI Score Predict COVID-19 Positivity? A retrospective analysis at a tertiary hospital

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Context: During the peak of the COVID-19 pandemic wave in The Kingdom of Saudi Arabia, much research was directed towards rapid point-of-care diagnostics to quickly identify and isolate COVID-19 suspected cases. The emergency department at our tertiary hospital utilized a slightly modified version of a SARI (Severe Acute Respiratory Infections) screening tool for triaging patients presenting to the ED with respiratory illness, formerly used extensively during the previous MERS epidemic. Currently, there are no studies on SARI as a screening tool for suspected COVID-19

patients. **Objective:** To assess the utility of our modified SARI screening tool in predicting COVID-19 positive cases in an ED setting. **Design:** A retrospective chart review carried out between March 13, 2020, and November 30, 2020. All incoming patients were screened with two tools, the SARI (Severe Acute Respiratory Illness) screening tool, and the CTAS-based triage tool. **Participants:** This study includes 961 patients who were screened using the SARI screening tool and underwent a combined nasopharyngeal and oropharyngeal RT-PCR swab for SARS-CoV-2. **Measures:** SARI scores were classified into categories – Low (1 - 4 points), Medium (5 - 11 points), and High (12 and above points). **Results:** The median SARI score was found to be 40% higher in COVID-19 positive patients as compared to COVID-19 negative patients ($p = 0.002$) (Table 1). However, the multivariate logistic regression analysis showed that the SARI model may only explain 3% of the variability in COVID-19 positivity ($R\text{-square} = 0.03$). The multivariate analysis of the SARI model variables resulted also in a weak prediction ability, where only 24% of the COVID-19 positivity could be explained through model predictors ($R\text{-square} = 0.242$) (Table 2). **Conclusions:** The SARI screening tool has a role in predicting COVID-19 positivity and requires additional studies on a larger and more representative population to further assess the accuracy and utility of the tool.

Initiating Usage of the Neuro-Sign Chart at ALERT General Hospital, Addis Ababa, Ethiopia

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Background: Neurological disorders constitute 6.3% of the global burden and contribute 12% of total deaths globally. Among these, cerebrovascular diseases are the most common (85%). At ALERT General Hospital, patients with neurologic disorders contributed 48% of ward admissions in 2020. Neuro-Sign Chart is used for monitoring, evaluating & following patients admitted with neurological disorders. Its components are vital signs, oxygen saturation, random blood sugar, seizure occurrence, Glasgow Coma Scale (GCS), muscle tone & power, deep tendon reflex, pupillary reaction, documented vomiting, fluid input & output, and remarks. It provides an instant snapshot of neurologic status in a given period & it is vital in ensuring the early recognition of neurological deterioration like raised intracranial pressure and is known to improve patient outcomes. **Methods:** Currently patients admitted with a neurologic disorder in the Medical Ward at ALERT are not followed with a Neuro-Sign Chart. We believe that introducing it will assist with better detection of raised ICP and improved provision of urgent management. We implemented a quality improvement project intending to have Neuro-Sign Chart documentation in $\geq 60\%$ of patients admitted with neurological diseases from December 1-31, 2021. We designed a Plan, Do, Study, Act (PDSA) cycle, and collected data through chart reviews and counts of proper documentation pre and post-intervention. The intervention itself included education and dissemination of posters around the ward. **Results:** In the pre-intervention period, there were 12 patients admitted with neurologic disease, and out of these patients, none had a Neuro-Sign Chart follow-up sheet documented. Post-intervention, of the 16 neurologic patients admitted to the ward, 11 (68.75%) had a proper Neuro-Sign chart follow-up in a documented sheet. The number of GCS posters and Neuro-Sign Chart sheets distributed increased from 0 for both to 15 and 60, respectively. **Conclusion:** An educational intervention to increase awareness among health care providers can be successful in initiating behavioral change to document Neuro-Sign Chart

parameters into patient charts for those admitted with neurological disease. The overall aim of this project would be to improve the quality of management and decrease morbidity, mortality, and hospital stay by timely detection of complications in neurologic patients. Further research is needed to assess the outcome of using this practice.

Is it Effective? Latent tuberculosis treatment in Memorial University's refugee health clinic

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Context: Effective treatment of latent tuberculosis infection (LTBI) is important in preventing reactivation to active tuberculosis in the newcomer population. In 2018-2021, the Refugee Health Collaborative Latent TB Clinic, formerly Memorial University of Newfoundland (MUN) Refugee Health Clinic (RHC) oversaw a LTBI treatment clinic for newcomers. Before 2019, first-line treatment was Isoniazid monotherapy for nine months (9INH). In 2019, Rifampin monotherapy for four months (4RMP) was introduced as first-line treatment with local public health approval reflecting WHO and CDC guidelines although it was not yet standard practice per provincial guidelines for LTBI management. **Objectives:** To evaluate the effectiveness of RHC's current approach to LTBI management and make recommendations for improvement. **Setting:** Refugee Health Collaborative LTBI Clinic (former MUN RHC). **Participants:** Refugee patients of all ages with either a positive TST or a positive IGRA between (January 1st 2018 - July 2021). **Method:** A patient chart audit was conducted searching for "TST, IGRA, latent and active Tuberculosis". LTBI treatment log sheets were also reviewed for treatment initiated, start/finish dates and side effects experienced. A literature review of LTBI treatment completion rates was also completed to contextualize results. **Outcome/Measures:** LTBI treatment course completion rates (with 4RMP or 9INH), side effects experienced, patients who were never initiated on treatment. **Results:** Overall completion rates were 89% for 4RMP (47/53) and 90% for 9INH (26/29) for the period of time studied. 14 people were identified as never having started treatment. Hematological and gastrointestinal were the most common 4RMP side effects observed whereas gastrointestinal and paresthesia were observed with INH. Literature review revealed completion rates of 52.63% – 78.8% elsewhere in Canada and outside the country. **Conclusion:** The RHC's higher completion rate for patients taking 4RMP and similar clinical effect compared to INH in our clinic suggests that the RHC should continue to offer 4RMP as a first line treatment for LTBI. Additional recommendations for improvement of the RHC include: (1) patients identified as never starting treatment should be contacted for follow-up counselling on their treatment options; and (2) an annual audit of latent TB treatment initiation and completion should be conducted to help prevent future loss to follow up.

Post COVID-19 Infection's Post-Traumatic Stress Disorder Among Healthcare Workers of Abderahman Mami Hospital in Ariana, Tunisia

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Context: Mental health in the general population still remains of a great concern of psychological researchers. The psychic impact of the COVID-19 pandemic has been of greater concern among healthcare workers (HCW) who are exposed continuously to infectious risks, and strict

professional requirements. Post-traumatic stress disorder (PTSD) have a significant prevalence among HCW. **Objective:** The objective of this study was to determine the individual and socio-occupational factors of post-traumatic stress after COVID-19 infection among healthcare workers at Abderrahmane Mami Hospital. **Design:** Analytical cross-sectional study. **Participants:** HCW at Abderrahmane Mami Hospital (referral COVID-19 hospital of the country) who had a positive RT-PCR test of SARS-Cov-2 on a nasopharyngeal swab over the 10-month period from January to October 2021. **Methods:** Data collection was performed three months after the resumption of professional activity. The PCL-5 questionnaire was used as a diagnostic tool for PTSD and a score above 33 points was considered positive for PTSD. The questionnaire was administered during the medical check up. The comparison of qualitative variables was analyzed by the Pearson test with a degree of significance of 5%. **Results:** Total subjects of the study was 76. PTSD prevalence was 30%. PTSD was statistically correlated with chronic affections (OR=3.47, CI 95% [1.17-10.28]), concentration disorder (OR=8.18, CI 95% [2.14-31.25]), memory disorder (OR=4.94, CI 95% [1.46-16.76]), mood disorder (OR=5.62, CI 95% [1.84-17.15]), sleep disorder (OR=9.78, CI 95% [2.54-37.72]). Socially, the disruption of all social relationship had a significant impact on PTSD (OR=4.22, CI 95% [1.43-12.44]), also the disrupted relationship with the family (OR=4.33, CI 95% [0.39-13.51]), with friends (OR=6.42, CI 95% [1.42-29.1]) and with colleagues (OR=5.73, CI 95% [1.58-20.77]). The overall difficulties of work tasks had a significant relationship with PTSD ($p=0.012$, OR 3.79, CI 95% [1.3-11.07]) communication problems in general (OR=5.87, CI 95% [1.99-23.02]), communication problems with the superior (OR=12.8, CI 95% [1.32-123.4]) were also found as associated with PTSD. The reduction of working time had a protective effect on PTSD (OR=0.25, CI 95% [0.16-0.38]). **Conclusion:** A significant rate of PTSD has been detected among HCW who have experienced SARS-Cov-2 infection. Ensuring the well-being of those workers, by installing early and adequate prevention tools of PTSD can be the route to ensure good quality and efficiency of health services.

Reduce Frequency of Insurance Denial for Incorrect Billing Regimen in Pharmacy Benefit Management System

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Background: Pharmacy Benefit Management (PBM) is a comprehensive drug utilisation program. The PBM design helps to manage the health insurance pharmaceuticals benefit in line with the best medical practices. Through PBM platform pharmacies receive pre-approvals for medications to be dispensed. One of the denial reason through PBM is the "Incorrect Billing regimen" (IBR) whereby multiple or inappropriate ICD-10 codes are linked to one medication. **Objective:** The aim of the performance improvement project is to reduce the dissatisfaction caused to the patient due to long waiting time at the pharmacies in receiving their medications. Secondly to lessen the duplication of work undergone by the pharmacist and Physicians in taking approvals for the same patient multiple times. Lastly, to minimize the time spent in clinical interventions between the health care providers in resolving the denials. **Design:** A performance improvement method of Plan-Do-Check-Act (PDCA) cycle also known as Deming cycle was used to achieve progressive improvement and monitor the quality of change in the work process. The process consists of four stages whereby identification of the problem is the first step, followed by testing possible solution, verifying the effectiveness and implementing the solution. **Result:** In 2020, 39% (n=551) of interventions were made by the pharmacists with the physicians regarding correction of denials related to IBR and diagnosis, and 34% (n=465) in 2021. The time spend by the pharmacist and physician for the intervention related to diagnosis which on an average takes 5-10 minutes was

shortened as there was a reduction in the number of interventions (n=86) estimated to save 430 to 860 minutes. There was 5% improvement in denials related to IBR and diagnosis, and financial saving valued up to Dhs. 203,200. **Conclusion:** A number of action plans taken to improve the service at the pharmacy turned out to be quite beneficial in terms of patient waiting time and time spend on interventions between the health care providers. The information technology team of Salamtak (Healthcare Digital Platform) also supported to prepare a reference manual for the physicians demonstrating the proper way of linking the most appropriate diagnoses with the patient medications.

Social Distancing at Endocrinology Outpatient Department's Waiting Area at Tikur Anbessa Hospital, Addis Ababa, Ethiopia

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Background: COVID19 (Coronavirus disease 19) is a current pandemic that is threatening the globe currently. The virus has no proven cure so far. Preventative measures like social distancing are an important option and infection prevention strategy. The spread of COVID19 is related to overcrowding situations. It is not unusual to see overcrowding in hospital settings including outpatient department. To prevent transmission the WHO (World Health Organization) recommends social distancing of about 2 meters. And this was proven to be beneficial in reducing the spread of COVID19 both in hospital and in community settings. **Statement of the problem:** It was observed that the Endocrinology clients at Black Lion Specialized Hospital (BLSH) are not adhering to social distancing and hence over crowded, which predisposes them to increased risk of contracting the virus and complications. **Objective:** At BLSH endocrinology OPD (Out Patient Department), ≥80% of patients and attendants will be able to adhere to social distancing protocol per the WHO guideline during July 1st-30th, 2020. **Method:** Cross-sectional interventional study design was used. **Interventions:** Social distancing posters were posted and social distancing markings were placed on the floor. Education regarding social distancing (practical simulation provided by nurses) was undergone at the waiting area. Telemedicine was used to see eligible patients and the number of patients entering waiting areas at one time was limited. **Results:** Pre-intervention data: On average 50 patients visit BLSH Endocrinology OPD per day. And 797 patients total visited the clinic in June 2020 of which only 10% of them applied social distancing protocols. **Post-intervention Data:** Among a total of 560 patients who come at endocrinology OPD during the month of July, 403 of them (72%) fulfils the criteria of inter-individual distance per WHO guideline. The post intervention data shows significant improvement in social distancing from 5% to 72% which we believe the continuous health education & the intervention brought it among other factors. **Conclusion:** The finding suggests that it is possible to maintain social distancing in settings of overcrowded hospitals by increasing awareness through education and by making feasible adjustments.

Step-Wise Evolution of Partnership Memorandums of Understanding in the building of Family Medicine Capacity in Guyana

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Background: In December of 2014, an initial Memorandum of Understanding (MoU) was signed between the Department of Family Medicine, University of Ottawa (uOttawa); Ministry of Health, Guyana; and the Georgetown Public Hospital Corporation that committed to developing the inaugural Family Medicine Training Program in the country. Since then, the MoU has been renewed twice, with the most recent being in the summer of 2022. Each MoU has step-wise revisions recognizing the built capacity and supporting further growth and independence. This poster outlines some of the components of the three sequential MoUs, metrics of partner involvement, and the Guyana Family Medicine Training Program's growing capacity and independence. **MOU #1** (January 1, 2015 – March 1, 2018) uOttawa had primary responsibility for the development and delivery of the educational content and clinical supervision. This was achieved by way of in-country Program Directors and regular visiting faculty. The first cohort of four family medicine graduates successfully completed the program by the end of the first MoU. **MOU #2** (May 1, 2018 -May 31, 2021) uOttawa supported the transition of program leadership to graduates of the Family Medicine Training Program and supported local capacity for clinical teaching and supervision. An additional nine family medicine graduates were achieved through the second MoU, and local Co-Directors were identified. **MOU #3:** (Being finalized - 3 years) The third MoU aims at continued support of leadership development, research capacity, and aligning established curriculum with a Caribbean residency standard of four years. The Guyana program is expanding its internal capacity for teaching and clinical supervision, and faculty development. **Identified Challenges:** Some challenges identified include turnover of key program champions, political and policy changes impacting funding priorities, limited coordination and capacity within local programs for teaching and clinical supervision, resource limitations including variable Internet access, and the COVID-19 pandemic. **Lessons to Share:** There are stages in program development and capacity building, with the need for stepwise evolution in deliverables. The Guyana Family Medicine Training program has been supported by sequential MoUs, with each one being negotiated to ensure a healthy partnership that ensures a successful and sustainable training program.

Strengthening Knowledge and Skills of Haitian Family Physicians to Fight COVID-19 Through Online Training Sessions

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Context: Involved at different patient care levels, family physicians in Haiti are in the frontline to play an important role during this pandemic. Strengthening their competencies through professional development/training initiatives is critical to addressing the demand for quality care, infection control and public health interventions. Our objective is to describe the training program of the Haitian Association of Family Physicians (AHMEF) designed to strengthen knowledge and skills of family medicine residents and family physicians (FMR&FP) in Haiti to fight COVID-19.

Methods: A synchronous online training was divided in two parts (June-July 2020, June-July 2021); each consisted of three sessions of 2.5 hours. Didactic methods included PowerPoint presentations, demonstration videos, questions and answers, short problems/cases. The following COVID-19 aspects were covered: diagnosis, biopsychosocial care at home and in hospital, individual and community prevention and control measures, physician professionalism and wellness, mutations, and vaccination. Trainers were 11 family physicians and three other specialists. The training targeted FMR&FP and was open to other healthcare professionals. Satisfaction, knowledge and skills of FMR&FP were self-reported immediately after the sessions; their involvement in the fight against COVID-19 was self-reported one year after the training.

Results: Among 66 FMR&FP, 50.0% were women, and 68.2% were family physicians; 66.7% attended the training in 2020 and 81.8% attended in 2021, 31.8% attended at least four of the six training sessions. Out of 34 satisfaction evaluation received, 55.9% mentioned very satisfied and 44.1% satisfied. Regarding auto-evaluations of FMR&FP, 13/14 were comfortable with epidemiological concepts, 11/14 were confident they could protect themselves from COVID-19, 13/13 were confident to apply wellness techniques, 6/7 were comfortable with the therapeutic approach to COVID-19. Of the 19 FMR&FP who responded the follow-up survey, 94.7% were involved in the fight against COVID-19 in Haiti (57.9% in clinical care, 63.2% in health education, and 47.4% in other interventions); respectively, 57.9% and 42.1% found the training very useful and useful to fight COVID-19. **Conclusion:** AHMEF's COVID-19 online training was successfully implemented. A large proportion of FMR&FP responding to the evaluations reported comfort and confidence in different COVID-19 aspects and confirmed the usefulness of the training to fight COVID-19.